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175928

From: Mertz, Prema
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Please search SEQ ID NO:6 with protein databases.

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Type of Search
NA# _____ AA# _____
S/L: _____ Oligomer: _____
Encode/Transl: _____
Structure #: _____ Text: _____
Inventor: _____ Litigation: _____

Vendors and cost where applicable
STN: _____
DIALOG: _____
QUESTEL/ORBIT: _____
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OM protein - protein search, using sw model

Run on: January 10, 2006, 22:51:05 ; Search time 160 Seconds
(without alignments)
326.307 Million cell updates/sec

Title: US-10-760-557-6

Perfect score: 416
Sequence: 1 TKTSSSRGRPHPSBCCPTT.....VCTNPDKMVDYIKDKMKN 74

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt_05.80:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	416	100.0	93	1 CCL14_HUMAN	Q16627 homo sapien
2	230	55.3	93	2 Q6DUX4_PIG	Q6DUX4 sus scrofa
3	226	51.3	92	2 Q711P4_PIG	Q711P4 sus scrofa
4	221	53.1	92	2 O8HYQ3_MACMU	O8HYQ3 macaca mula
5	220	52.9	92	2 O8HYQ2_MACMU	O8HYQ2 macaca mula
6	219	52.6	92	1 CCL13_HUMAN	P10147 h small ind
7	218	52.4	92	1 CCL14_MOUSE	P14097 mus musculu
8	218	52.4	92	2 O8HNM4_HUMAN	O8HNM4 homo sapien
9	218	52.4	92	2 O5QNV9_MOUSE	O5QNV9 mus musculu
10	218	52.4	93	1 CCL3L_HUMAN	P16619 homo sapien
11	218	52.4	93	2 O53YA5_HUMAN	O53YA5 homo sapien
12	216	51.9	92	1 CCL14_RABIT	P46632 oryctolagus
13	214	51.4	90	2 Q4VSK4_ANAFL	Q4VSK4 anas platyr
14	214	51.4	92	2 O68A20_CANFA	O68A20 canis fam11
15	213	51.2	92	1 CCL3_PANTR	O51120 pan troglod
16	213	51.2	92	1 CCL4_RAT	P50230 rattus norv
17	213	51.2	92	2 O6NSB0_HUMAN	O6NSB0 homo sapien
18	213	51.2	92	2 O91ZL0_SIGHI	O91ZL0 sigmodon hi
19	212	51.0	92	1 CCL4_HUMAN	P13336 h small ind
20	212	51.0	92	2 O6FGI8_HUMAN	O6FGI8 homo sapien
21	211	50.7	93	1 CCL3_BOVIN	O89G46 bos taurus
22	209	50.2	93	2 O8HYN4_MACMU	O8HYN4 macaca mula
23	209	50.2	90	2 O9PMA6_CHICK	O9PMA6 gallus fam11
24	209	50.2	92	1 CCL3_CANFA	O68A92 canis fam11
25	207	49.8	80	2 O14745_HUMAN	O14745 homo sapien
26	206	49.5	90	1 CCL4_CHICK	O90826 gallus gall
27	201.5	48.4	89	2 O918E0_CHICK	O918E0 gallus gall
28	201.5	48.4	89	2 O4KX30_CHICK	O4KX30 gallus gall
29	201	48.3	89	1 CCL18_HUMAN	P55774 h small ind
30	201	48.3	89	2 O53X71_HUMAN	O53X71 homo sapien
31	200.5	48.2	92	1 CCL3_MOUSE	P10855 mus musculu

ALIGNMENTS

32	200.5	48.2	92	2	O5QNM0_MOUSE	O5QNM0 mus musculu
33	195	46.9	85	2	O80XG5_PERMA	O80XG5 peromyscus
34	191.5	46.0	92	1	CCL3_RAT	P50223 rattus norv
35	187.5	45.1	87	2	O5QEB7_HUMAN	O5QEB7 homo sapien
36	184	44.2	88	1	CCL18_MACMU	O8HYP8 macaca mula
37	183.5	44.1	92	2	O91Z65_SIGHI	O91Z65 sigmodon hi
38	176	42.3	49	2	O8HYN3_MACMU	O8HYN3 macaca mula
39	176	42.3	120	1	CCL23_HUMAN	P55773 homo sapien
40	176	42.3	120	2	O521D4_HUMAN	O521D4 homo sapien
41	174	41.8	101	2	O64IC2_ONCMV	O64IC2 oncorhynch
42	172	41.3	91	1	CCL5_HORSE	O6MKD0 equus caball
43	172	41.3	91	1	CCL5_HUMAN	P13501 homo sapien
44	171.5	41.2	98	2	O5PY11_MESAU	O5PY11 mesocricetu
45	170.5	41.0	119	2	O8K477_RAT	O8K477 rattus norv

RESULT 1

CCL14_HUMAN	STANDARD,	PRT,	93 AA.
ID	CCL14_HUMAN		
AC	Q16627; Q13954;		
DT	01-NOV-1997 (Rel. 35, Created)		
DT	01-NOV-1997 (Rel. 35, Last sequence update)		
DT	10-MAY-2005 (Rel. 47, Last annotation update)		
DE	Small inducible cytokine A14 precursor (CCL14) (Chemokine CC-1/CC-3) (HCC-1/HCC-3) (HCC-1(1-74)) (NCC-2) [Contains: HCC-1(3-74); HCC-1(4-74); HCC-1(9-74)].		
GN	Name=CCL14; Synonyms=NCC2, SCYA14;		
OS	Homo sapiens (Human).		
OC	Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;		
OC	Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homnidae;		
OC	Hom.		
OX	NCBI_TaxID=9606;		
RN	[1]		
RP	NUCLEOTIDE SEQUENCE, AND PROTEIN SEQUENCE OF 20-93.		
RC	TISSUE=Bone marrow;		
RX	MEDLINE=96136773; PubMed=8551235; DOI=10.1084/jem.183.1.295;		
RA	Schulz-Knappe P., Maegert H.-U., Dewald B., Meyer M., Cetin Y.,		
RA	Rubdies M., Tomeczkowski J., Kirchhoff K., Raida M., Ademann K.,		
RA	Kist A., Reinecke M., Sillard R., Pardigol A., Ugucioni M.,		
RA	Baggiolini M., Forstmann W.-G.;		
RA	"HCC-1, a novel chemokine from human plasma.";		
RA	J. Exp. Med. 183:295-299(1996).		
RL	[2]		
RP	NUCLEOTIDE SEQUENCE.		
RC	TISSUE=Liver;		
RX	MEDLINE=98263352; PubMed=9600961; DOI=10.1073/pnas.95.11.6308;		
RA	Pardigol A., Forstmann U., Zucht H.-D., Loetscher P.,		
RA	Schulz-Knappe P., Baggiolini M., Forstmann W.-G., Maegert H.-U.;		
RA	"HCC-2, a human chemokine: gene structure, expression pattern, and		
RA	biological activity.";		
RA	Proc. Natl. Acad. Sci. U.S.A. 95:6308-6313(1998).		
RL	[3]		
RP	NUCLEOTIDE SEQUENCE.		
RX	MEDLINE=99228475; PubMed=10213461; DOI=10.1089/107999099314153;		
RA	Nomiyama H., Fukuda S., Ito M., Tanase S., Miura K., Yoshie O.;		
RA	"Organization of the chemokine gene cluster on human chromosome		
RA	17q11.2 containing the genes for CC chemokine MIPF-1, HCC-2, IEC, and		
RA	RANTES.";		
RA	J. Interferon Cytokine Res. 19:227-234(1999).		
RL	[4]		
RP	NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM HCC-1).		
RC	TISSUE=pancreas, and Spleen;		
RX	MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;		
RA	Struhsberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,		
RA	Klausner R.D., Collins F.S., Wagner L., Shemen C.M., Schuler G.D.,		
RA	Altshul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,		
RA	Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,		
RA	Dickchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,		
RA	Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,		
RA	Brownstein M.J., Udell T.B., Toshiyuki S., Carninci F., Prange C.,		

RA Rata S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaly S.J.,
RA Boak S.K., McEwan P.J., McKernan K.J., Malek U.A., Gunatirane P.H.,
RA Richards S.K., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodegren G.J., Lu X., Gibbs R.A.,
RA Fahney J., Helton E., Keteeman M., Madden A.C., Shechenko Y., Bouffard G.G.,
RA Maling M., Maden A., Young A.C., Shechenko Y., Bouffard G.G.,
RA Blakeley R.W., Touchman J.W., Green B.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield J., S.N. Krzyzaniak W.I., Skalska U.,
RA Schenck A., Schein J.E., Jones S.J.M., Mates M.A., Smalls D.E.,
RT "Generation and initial analysis of more than 15,000 full-length human
RL and mouse cDNA sequences".
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [5]
RN PROTEIN SEQUENCE OF 20-32. IDENTIFICATION OF HCC-1(3-74) AND
RN HCC-1(4-74), MASS SPECTROMETRY, AND CARBOHYDRATE-LINKAGE SITE SER-26.
RP PubMed:10978165; DOI=10.1021/b1992488d
RX Richter R., Schnitz-Knappe P., John H., Forssmann W.-G.,
RA "Posttranslationalcally processed forms of the human chemokine HCC-1.";
RL Biochemistry 39:11079-110805(2000).
RN [6]
RN PROTEIN SEQUENCE OF 20-48. IDENTIFICATION OF HCC-1(9-74), MASS
RP SPECTROMETRY, AND FUNCTION.
RX PubMed:11085751; DOI=10.1084/jem.192.10.1501.
CC Degheux M., Staendker L., Vakil I.J., Muench J., Forssmann U.,
CC Adelman K., Pochmann S., Vissart G., Kirchhoff F., Parmentier M.,
CC Forssmann W.-G.,
RT "Natural proteolytic processing of hemofiltrate CC chemokine 1
RT generates a potent CC chemokine receptor (CCR)1 and CCR5 agonist with
RT anti-HIV properties.";
RL J. Exp. Med. 192:1051-1058(2000).
CC -1- FUNCTION: Has weak activities on human monocytes and acts via
CC receptors that also recognize MIP-1 alpha. It induced
CC intracellular Ca(2+) changes and enzyme release, but no
CC chemotaxis, at concentrations of 100-1,000 nM, and was inactive on
CC T lymphocytes, neutrophils, and eosinophilic leukocytes. Enhances
CC the proliferation of CD34 myeloid progenitor cells. The processed
CC form HCC-1(9-74) is a chemotactic factor that attracts monocytes,
CC eosinophils, and T cells and is a ligand for CCR1, CCR3 and CCR5.
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- ALTERNATIVE PRODUCTS:
CC Name=HCC-1;
CC isoid=Q16627-1; Sequence=Displayed;
CC Name=HCC-3;
CC isoid=Q16627-2; Sequence=VSP_001060;
CC -1- TISSUE SPECIFICITY: Expressed constitutively in several normal
CC tissues: spleen, liver, skeletal and heart muscle, gut, and bone
CC marrow, present at high concentrations (1-80 nM) in plasma.
CC -1- PPM: The N-terminal processed forms HCC-1(3-74), HCC-1(4-74) and
CC HCC-1(9-74) are produced in small amounts by proteolytic cleavage
CC after secretion in blood.
CC -1- PPM: HCC-1(1-74), but not HCC-1(3-74) and HCC-1(4-74), is
CC partially O-glycosylated; the O-linked glycan consists of one Gal-
CC GalNAc disaccharide, further modified by two N-acetylneuraminic
CC acids.
CC -1- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstations
CC at the European Bioinformatics Institute. There are no restrictions on
CC use as long as its content is in no way modified and this statement is
CC removed.
CC -----
DR EMBL: Z49270; CAA98264.1; -; mRNA.
DR EMBL: Z70292; CAA94307.1; -; mRNA.
DR EMBL: Z70293; CAA94309.1; -; mRNA.
DR EMBL: Z49261; CAA89263.1; -; Genomic DNA.
DR EMBL: AF088219; AAC63329.1; -; Genomic DNA.
DR EMBL: AF088219; AAT23982.1; -; Genomic DNA.
DR EMBL: BC038289; AAT83289.1; -; mRNA.
DR EMBL: BC045165; AAT45165.1; -; mRNA.
DR HSSP: P13236; IHUM.

DR HGNC; HGNC:10612; CCL14.
 DR MIM; 601392; -
 DR GO; GO:0005615; C:extracellular space; TAS.
 DR GO; GO:0004871; P:signal transducer activity; TAS.
 DR GO; GO:0006874; P:calcium ion homeostasis; TAS.
 DR GO; GO:0008284; P:positive regulation of cell proliferation; TAS.
 DR Interpro: IPR000827; CC chemokine smf.
 DR Interpro: IPR001811; Chemokine_IL8.
 DR Pfam: PF00048; IL8; 1.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW Alternative splicing; Cytokine; Direct protein sequencing;
 KM Glutoprotein; signal; 9
 FT CHAIN 1 9
 FT CHAIN 20 93 Small inducible cytokine A14.
 FT CHAIN 22 93 HCC-1(3-74).
 FT CHAIN 23 93 HCC-1(4-74).
 FT CHAIN 28 93 HCC-1(9-74).
 FT CABOXYD 26 26 O-linked (GalNAc. .).
 FT DISULFID 35 59 By similarity.
 FT DISULFID 36 75 By similarity.
 FT VARSPLIC 27 27 R -> QTGGRPKVVKIQLKLVG (In isoform HCC-3).
 SQ SEQUENCE 93 AA; 10678 MW; DDBB899DC9148836 CRC64; /FTID=VSP_001060.
 Query Match 100.0%; Score 416; DB 1; Length 93;
 Best Local Similarity 100.0%; Pred. No. 7,4e-39;
 Matches 74; Conservative 0; Mismatches 0; Indels 0; Gaps

Oy 1 TKTSSSRGGPYHSECCFYTTYTKIPRORIMDYETNSQCSKPGIVFITRKSGSVCTNS 60
 Db 20 TKTESSSRGGPYHSECCFYTTYTKIPRORIMDYETNSQCSKPGIVFITRKSGSVCTNS 79
 Oy 61 DKWVDYIKDKMKN 74
 Db 80 DKWVDYIKDKMKN 93

RESULT 2
 ID Q6DUK4_PIG PRELIMINARY; PRT; 93 AA.
 AC Q6DUK4_PIG
 DT 25-OCT-2004 (TREMBLrel. 28, Created)
 DT 25-OCT-2004 (TREMBLrel. 28, Last sequence update)
 DT 25-OCT-2004 (TREMBLrel. 28, Last annotation update)
 DE Macrophage inflammatory protein 1 alpha.
 OS Sus scrofa (Pig).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suidae; Suidae;
 OC Sub.
 NC NCB1_TaxID=9823;
 RN [1]
 RP NCBI/EBOT/SEQUENCE.
 RA Striling C.M.A.; Takamatsu H.;
 RL Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
 DR EMBL; AY634423; AAT65077.1; -; mRNA.
 DR GO; GO:0005576; C:extracellular region; IEA.
 DR GO; GO:0008009; F:chemokine activity; IEA.
 DR GO; GO:0006935; P:chemotaxis; IEA.
 DR GO; GO:0006955; P:immune response; IEA.
 DR Interpro: IPR000827; CC chemokine smf.
 DR Interpro: IPR001811; Chemokine_IL8.
 DR Pfam: PF00048; IL8; 1.
 DR SMART: SM00199; SCY; 1.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 SQ SEQUENCE 93 AA; 10117 MW; 088DD6CAE82841AC CRC64;

Query Match 55.3%; Score 230; DB 2; Length 93;
 Best Local Similarity 52.3%; Pred. No. 5,7e-18;
 Matches 37; Conservative 16; Mismatches 17; Indels 0; Gaps

5 SSRGPYHSECCFYTTYTKIPRORIMDYETNSQCSKPGIVFITRKSGSVCTNSPSDKNV 64
 :|::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||:
 |::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||:

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Db 23 SAPIGADPTACCFSTYSRQLPRKRVADYFETSSQSKRGVIFQTKRGKVCANPEDAMV 82
QY 65 ODYIKDMKEN 74
Db 83 QEYISDLEIN 92

RESULT 3
QY 0711P4_PIG PRELIMINARY; PRT; 92 AA.
AC 0711P4;
DT 05-JUN-2004 (TREMBLrel. 27, Created)
DT 05-JUN-2004 (TREMBLrel. 27, Last sequence update)
DT 05-JUN-2004 (TREMBLrel. 27, Last annotation update)
DE Putative MIP-1beta protein.
GN Name=MIP-1beta;
OS Sus scrofa (Pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
OC
OC NCBI_TaxID=9823;
OX [1]
RN NUCLEOTIDE SEQUENCE.
RA Ortuno E., Rodriguez-Carreño M.P., Alonso F., Domínguez J.,
RL Submitted (MAR-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL; AJ311717; CAB4398.1; mRNA.
DR HSSP; P10147; 1B50.
DR SMR; 0711P4; 24-92.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0008009; F:chemokine activity; IEA.
DR GO; GO:0006935; P:chemokine response; IEA.
DR GO; GO:0006935; P:immune response; IEA.
DR InterPro; IPR000827; CC_chemokine_sml.
DR InterPro; IPR001811; Chemokine_IL8.
DR Pfam; PF00048; IL8; 1.
DR SMART; SM00199; SCY; 1.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
SQ SEQUENCE 92 AA; 10207 MW; AB1E0A5E9A9F70E5 CRC64;

Query Match 54.3%; Score 226; DB 2; Length 92;
Best Local Similarity 54.3%; Pred. No. 1.6e-17;
Matches 38; Conservative 12; Mismatches 20; Indels 0; Gaps 0;

QY 5 SSSRGYPHSECCFTYTYKIPRORIMDYETNSQSKRGVIFITRGHGVCTNPSDKV 64
Db 23 SAPKGSDDPTSCCFYTYAKLRNPFVTDYETSSLCSPAVVFFQTKRGKVCANPSDDMV 82
QY 65 ODYIKDMKEN 74
Db 83 QEYISDLEIN 92

RESULT 4
QY 08HYO3_MACMU PRELIMINARY; PRT; 92 AA.
AC 08HYO3;
DT 01-MAR-2003 (TREMBLrel. 23, Created)
DT 01-MAR-2003 (TREMBLrel. 23, Last sequence update)
DT 01-OCT-2003 (TREMBLrel. 25, Last annotation update)
DE Chemokine CCL4/MIP-1ADPHA.
OS Macaca mulatta (Rhesus macaque).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
OC Cercopithecoidea; Cercopithecinae; Macaca.
OC NCBI_TaxID=9544;
OX [1]
RN NUCLEOTIDE SEQUENCE.
RA MEDLINE=22123042; PubMed=12126650; DOI=10.1006/cyto.2002.0875;
RA Baas S., Schaefer T.M., Ghosh M., Fuller C.L., Reinhardt T.A.;
RT "Molecular cloning and sequencing of 25 different rhesus macaque
RT chemokine cDNAs reveals evolutionary conservation among C, CC, CXCL,
RT and CX3C families of chemokines.";
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RL Cytokine 18:140-148 (2002).
DR EMBL; AF449266; AAN76070.1; mRNA.
DR HSSP; P10147; 1B50.
DR SMR; 08HYO3; 24-92.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0008009; F:chemokine activity; IEA.
DR GO; GO:0006935; P:chemokine response; IEA.
DR GO; GO:0006935; P:immune response; IEA.
DR InterPro; IPR000827; CC_chemokine_sml.
DR InterPro; IPR001811; Chemokine_IL8.
DR Pfam; PF00048; IL8; 1.
DR SMART; SM00199; SCY; 1.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
SQ SEQUENCE 92 AA; 10120 MW; 021CAA371143D12A CRC64;

Query Match 53.1%; Score 221; DB 2; Length 92;
Best Local Similarity 56.7%; Pred. No. 5.8e-17;
Matches 34; Conservative 14; Mismatches 12; Indels 0; Gaps 0;

QY 13 PSECCFTYTYKIPRORIMDYETNSQSKRGVIFITRGHGVCTNPSDKVODYIKDMK 72
Db 30 PTSCCFSTYSRQIFQNFVADYFETNSQSKRGVIFITRGKRGVCADPSKENVQKTVSDLE 89

RESULT 5
QY 08HYO2_MACMU PRELIMINARY; PRT; 92 AA.
AC 08HYO2;
DT 01-MAR-2003 (TREMBLrel. 23, Created)
DT 01-MAR-2003 (TREMBLrel. 23, Last sequence update)
DT 01-OCT-2003 (TREMBLrel. 25, Last annotation update)
DE Chemokine CCL4/MIP-1BETA.
OS Macaca mulatta (Rhesus macaque).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
OC Cercopithecoidea; Cercopithecinae; Macaca.
OC NCBI_TaxID=9544;
OX [1]
RN NUCLEOTIDE SEQUENCE.
RA MEDLINE=22123042; PubMed=12126650; DOI=10.1006/cyto.2002.0875;
RA Baas S., Schaefer T.M., Ghosh M., Fuller C.L., Reinhardt T.A.;
RT "Molecular cloning and sequencing of 25 different rhesus macaque
RT chemokine cDNAs reveals evolutionary conservation among C, CC, CXCL,
RT and CX3C families of chemokines.";
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CCL3_HUMAN STANDARD; PRT; 92 AA.
AC P10147;
DT 01-MAR-1989 (Rel. 10, Created)
DT 13-SEP-2005 (Rel. 48, Last sequence update)
DE Small inducible cytokine A3 precursor (CCL3) (Macrophage inflammatory protein 1-alpha) (MIP-1-alpha) (Tonsillar lymphocyte LD78 alpha protein) (Go/G1 switch regulatory protein 19-1) (GOS19-1 protein) (SIS-beta) (PAT 464.1) [Contains: MIP-1-alpha(4-69) (LD78-alpha(4-69))].
GN Name=CCL3; Synonyms=GOS19-1, MIP1A, SCVA3;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae; Homo.
OC NCBI_TaxID=9606;
RN NUCLEOTIDE SEQUENCE.
RX MEDLINE=86223879; PubMed=3086300;
RT Obaru K., Fukuda M., Mada S., Shimada K.;
RT "A cDNA clone used to study mRNA inducible in human tonsillar lymphocytes by a tumor promoter.";
RT J. Biochem. 99:885-894(1986).
RN NUCLEOTIDE SEQUENCE.
RX MEDLINE=89140347; PubMed=2521882;
RT Zipfel F.F., Balke U., Irving S.G., Kelly K., Siebenlist U.;
RT "Mitogenic activation of human T cells induces two closely related genes which share structural similarities with a new family of secreted factors.";
RT J. Immunol. 142:1582-1590(1989).
RN NUCLEOTIDE SEQUENCE.
RX MEDLINE=91103879; PubMed=2271120;
RT Blum S., Forsdyke R.E., Forsdyke D.R.;
RT "Three human homologs of a murine gene encoding an inhibitor of cell proliferation.";
RT DNA Cell Biol. 9:589-602(1990).
RN NUCLEOTIDE SEQUENCE.
RX MEDLINE=90287155; PubMed=1694014;
RT Nakao M., Nomiyama H., Shimada K.;
RT "Structures of human genes coding for cytokine LD78 and their expression.";
RT Mol. Cell. Biol. 10:3646-3658(1990).
RN NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RP TISSUE=Blood;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RT Krausberg R.D., Collins F.S., Wagner L., Shennan C.M., Schuler G.D., Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Hsieh N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., DiCicco L., Marins K., Farmer A.A., Rubin G.M., Hong L., Brockstein M., Soares M.B., Bonaldi M.F., Casavant T.L., Schetz T.E., Brownstein N.J., Uebachs T.B., Toshiyuki S., Canniani P., Prange C.J., Bork S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaly R., Rask S.A., McKenney F.J., McKenney K.J., Malek U.A., Sutaracina P.H., Richards S.A., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hilyk S.W., Villalón D.K., Muzny D.W., Sodergren E.J., Lu X., Gibbs R.A., Fahey J., Helton E., Kettelman M., Maan A., Rodriguez S., Sanchez A., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Gilmwood J., Schmutz J., Myers R.M., Butcherfield Y.S.N., Krzywinski M.I., Skalska U., Smallus D.E., Schmechel A., Schein J.E., Jones S.J.W., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human RT and mouse cDNA sequences.";
RT Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN NUCLEOTIDE SEQUENCE OF 23-92.
RP Jang J.S., Kim B.E.;

RL Submitted (JAN-1998) to the EMBL/GenBank/DBJ databases.
RN PROTEIN SEQUENCE OF 24-92, AND MUTAGENESIS OF ASP-49.
RX MEDLINE=96127782; PubMed=8541527;
RA Hunter M.G., Bowden L., Brocheton D., Craig S., Cribbes S., Chaplewski L.G., Dexter T.M., Drummond A.H., Gearling A.H., Heyworth C.M., Lord B.I., Mccourt M., Varley P.G., Wood L.M., Edwards R.M., Lewis P.J.;
RT "BB-10010: an active variant of human macrophage inflammatory protein-1 alpha with improved pharmaceutical properties.";
RT Blood 86:4400-4408(1995).
RN PROTEIN SEQUENCE OF 27-40 AND 71-83, AND FUNCTION.
RX MEDLINE=96106406; PubMed=8525373;
RA Cocchi F., Devico A.L., Garzino-Demo A., Arya S.K., Gallo R.C., Lusso P.;
RT "Identification of RANTES, MIP-1 alpha, and MIP-1 beta as the major HIV-suppressive factors produced by CD8+ T cells.";
RT Science 270:1811-1815(1995).
RN PROTEIN SEQUENCE OF 27-51, AND IDENTIFICATION OF LD78-ALPHA(4-69).
RX MEDLINE=95251928; PubMed=7537510;
RA Bertini R., Iulini W., Sozzani S., Bottazzi B., Ruggiero P., Boraschi D., Saggiaro D., Chicco-Bianchi L., Probst P., Van Damme J., Mantovani A.;
RT "Identification of MIP-1 alpha/LD78 as a monocyte chemottractant released by the HIV-1-transformed cell line MT4.";
RT AIDS Res. Hum. Retroviruses 11:155-160(1995).
RN SHUNT, AND INTERACTION WITH MIP-1-BETA(3-69).
RX MEDLINE=22191307; PubMed=12070155; DOI=10.1074/jbc.M203077200;
RT Guan B., Wang J., Rodriguez G., Norcross M.A., CCL4 affects receptor specificity but not anti-HIV-1 activity.";
RT J. Biol. Chem. 277:32348-32352(2002).
RN REVIEW.
RX MEDLINE=22288990; PubMed=12401480; DOI=10.1016/S1359-6101(02)00045-X;
RT Menten P., Whyte A., Van Damme J.;
RT "Macrophage inflammatory protein-1.";
RL Cytokine Growth Factor Rev. 13:455-481(2002).
RN STRUCTURE BY NMR OF 24-92, AND MUTAGENESIS OF ASP-49 AND GLU-89.
RX MEDLINE=99278370; PubMed=10347159; DOI=10.1074/jbc.274.23.16077;
RA Czaplinski L.G., McKeating J., Craven C.J., Higgins L.D., Appay V., Brown A., Dudgeon T., Howard L.A., Meyers T., Owen J., Palan S.R., Tan P., Wilson G., Woods N.R., Heyworth C.M., Lord B.I., Brotherton D., Christison R., Craig S., Cribbes S., Edwards R.M., Evans S.J., Gilbert R., Morgan P., Elliot Randle E., Schofield N., Varley P.G., Fisher J., Jonathan P., Waltho J.P., Hunter M.G.;
RT "Identification of amino acid residues critical for aggregation of human CC chemokines macrophage inflammatory protein (MIP)-1alpha, MIP-1beta, and RANTES. Characterization of active disaggregated chemokine variants.";
RT J. Biol. Chem. 274:16077-16084(1999).
RN FUNCTION. Monokine with inflammatory and chemokine properties. Binds to CCR1, CCR4 and CCR5. One of the major HIV-suppressive factors produced by CD8+ T cells. Recombinant MIP-1-alpha induces a dose-dependent inhibition of different strains of HIV-1, HIV-2, and simian immunodeficiency virus (SIV).
RN SUBUNIT. Self-associates. Also heterodimer of MIP-1-alpha(4-69) and MIP-1-beta(3-69).
RN SUBCELLULAR LOCATION. Secreted.
RN INDUCTION. By IPA or PHA (IPA = 12-O-tetradecanoyl phorbol-13-acetate (tumor promoter); PHA = phytohemagglutinin (T-cell mitogen)).
RN PTM: N-terminal processed form LD78-alpha(4-69) is produced by proteolytic cleavage after secretion from HIV-1-transformed T-cells.
RN SIMILARITY: Belongs to the interleukin beta (chemokine CC) family. This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -

the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not removed.

CC EMBL; D00044; BAA00029.1; -; mRNA.
 CC EMBL; M23452; AAA56316.1; -; mRNA.
 CC EMBL; M23452; AAA57255.1; -; mRNA.
 CC EMBL; X03754; CAA27388.1; -; mRNA.
 CC EMBL; X04018; CAA27643.1; -; mRNA.
 CC EMBL; M23178; AAA5858.1; -; Genomic DNA.
 CC EMBL; D90144; BAA14172.1; -; Genomic DNA.
 CC EMBL; BC071834; AAT1834.1; -; mRNA.
 CC EMBL; AF043339; AAC03539.1; -; mRNA.
 CC PIR; A35673; A30574.
 CC PDB; 1B53; NMR; A/B=24-92.
 CC DR; Ensemble; ENSG0000006075; Homo sapiens.
 CC HGNC; HGNC:10627; CCL3.
 CC MIM; 182283; -;
 CC DR; GO; GO:0005623; C:soluble fraction; TAS.
 CC DR; GO; GO:000809; F:chemokine activity; TAS.
 CC DR; GO; GO:0004871; F:signal transducer activity; TAS.
 CC DR; GO; GO:0019735; P:antimicrobial humoral response (sensu Verte. . .); TAS.
 CC DR; GO; GO:0006872; P:calcium ion homeostasis; TAS.
 CC DR; GO; GO:0006928; P:cell motility; TAS.
 CC DR; GO; GO:0007267; P:cell-cell signaling; TAS.
 CC DR; GO; GO:0006935; P:chemotaxis; TAS.
 CC DR; GO; GO:0007010; P:cytoskeleton organization and biogenesis; TAS.
 CC DR; GO; GO:0006887; P:exocytosis; TAS.
 CC DR; GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; TAS.
 CC DR; GO; GO:0006954; P:inflammatory response; TAS.
 CC DR; GO; GO:0045065; P:regulation of viral genome replication; TAS.
 CC DR; GO; GO:0007165; P:signal transduction; TAS.
 CC DR; InterPro; IPR000827; CC chemokine sm1.
 CC DR; InterPro; IPR001811; Chemokine_IL8.
 CC DR; Pfam; PF00048; IL8; 1.
 CC DR; PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 CC KW; 3D-structure; Chemotaxis; Cytokine; Direct protein sequencing; Inflammatory response; Sensory transduction; Signal.
 CC FT; SIGNAL; 1 23
 CC FT; CHAIN; 24 92 Small inducible cytokine A3.
 CC FT; CHAIN; 27 92 MIP-1-alpha(4-69).
 CC FT; DISULFID; 33 57 By similarity.
 CC FT; DISULFID; 34 73 By similarity.
 CC FT; MUTAGEN; 49 49 D->A: Reduces self-association; in BB-10010; Improved pharmaceutical properties.
 CC FT; MUTAGEN; 89 89 E->A: Reduces self-association.
 CC FT; TURN; 44 46
 CC FT; STRAND; 49 51
 CC FT; TURN; 55 58
 CC FT; STRAND; 63 65
 CC FT; TURN; 67 68
 CC FT; TURN; 76 77
 CC FT; HELIX; 79 84

Query Match 52.6%; Score 219; DB 1; Length 92;
 Best Local Similarity 51.5%; Pred. No. 9, 8e-17;
 Matches 35; Conservative 17; Mismatches 16; Indels 0; Gaps 0;

QY 5 SSSRGPHSECCFYTYTKIPRQIMDYETNSQCKGIVFITRGHSVCTNPEDKAV 64
 DB 22 SASLADPTACCFSTYSHQIPQNFADYFETSSQCKSGVIFLTRSRQVCAADPSEEW 81
 QY 65 QDYIKDMK 72
 DB 82 QKTVSDLR 89
 RESULT 7
 CCL4_MOUSE STANDARD; PRT; 92 AA.
 ID CCL4_MOUSE
 AC P14097;

DT 01-JAN-1990 (Rel. 13, Created)
 DT 01-FEB-1996 (Rel. 33, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Small inducible cytokine A4 precursor (CCL4) (Macrophage inflammatory
 DE protein 1-beta) (MIP-1-beta) (H400 protein) (SIS-gamma) (ACT2).
 GN Name=Ccl4; Synonyms=Mip1b, Scya4;
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 OC Muridae; Muridae; Murinae; Mus.
 OC NCBI_TaxID=10090;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=89067810; PubMed=3058856; DOI=10.1084/jem.168.6.2251;
 RA Sherry B., Tekamp-Olson P., Galligoe C., Bauer D., Davatelis G.,
 RA Wolpe S.D., Maslarz F., Colt D., Cerami A.,
 RT "Resolution of the two components of macrophage inflammatory protein
 RT 1, and cloning and characterization of one of those components,
 RT macrophage inflammatory protein 1 beta.";
 RL J. Exp. Med. 168:2251-2259(1988).
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=89093958; PubMed=2521353;
 RA Brown K.D., Zurawski S.M., Mosmann T.R., Zurawski G.,
 RA "A family of small inducible proteins secreted by leukocytes are
 RT members of a new superfamily that includes leukocyte and fibroblast-
 RT derived inflammatory agents, growth factors, and indicators of various
 RT activation processes.";
 RL J. Immunol. 142:679-687(1989).
 RN [3]
 RP NUCLEOTIDE SEQUENCE.
 RX STRAIN=DRB/20; TISSUE=Liver;
 RA Dauberles P., Lepretre F., Bailleul B., Grove M., Pragnell I.,
 RA Plumb M.A.;
 RL Submitted (OCT-1991) to the EMBL/GenBank/DBJ databases.
 RN [4]
 RP NUCLEOTIDE SEQUENCE.
 RX STRAIN=B10.S/J and S.J/J; TISSUE=Spleen;
 RA MEDLINE=99370037; PubMed=10438970;
 RA Teuscher C., Butterfield R.O., Ma R.Z., Zachary J.F., Doerge R.W.,
 RA Blankenhorn E.P.;
 RT "Sequence polymorphisms in the chemokines Scya1 (TCA-3), Scya2
 RT (monocyte chemoattractant protein (MCP)-1), and Scya12 (MCP-5) are
 RT candidates for eae7, a locus controlling susceptibility to monophasic
 RT remitting/normalepsing experimental allergic encephalomyelitis.";
 RL J. Immunol. 163:2262-2266(1999).
 CC -1- FUNCTION: Monokine with inflammatory and chemokine properties.
 CC -1- SUBUNIT: Homodimer (By similarity).
 CC -1- SUBCELLULAR LOCATION: Secreted.
 CC -1- SIMILARITY: Belongs to the interleukin beta (chemokine CC) family.
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use as long as its content is in no way modified and this statement is not
 CC removed.
 CC EMBL; M23503; AAA40148.1; -; mRNA.
 CC EMBL; M35590; AAA39708.1; -; mRNA.
 CC EMBL; X62502; CAA44364.1; -; Genomic DNA.
 CC EMBL; AF128218; AAF22559.1; -; mRNA.
 CC EMBL; AF128219; AAF22560.1; -; mRNA.
 CC PIR; C30552; C30552.
 CC HSSP; P13236; 1HDM.
 CC SMR; P14097; 24-92.
 CC DR; Ensemble; ENSMUSG0000018930; Mus musculus.
 CC MGI; MGI:98261; Ccl4.
 CC DR; GO; GO:000615; C:extracellular space; TAS.
 CC DR; GO; GO:0005515; F:protein binding; IPI.
 CC DR; InterPro; IPR000827; CC_Chemokine_sm1.
 CC DR; InterPro; IPR001811; Chemokine_IL8.
 CC DR; InterPro; IPR008105; Lymphotactin.
 CC Pfam; PF00048; IL8; 1.

DR PRINTS; PRO1731; LYMPHOTACTIN.
DR SMART; SMO0199; SCY; 1.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
DR Chemotaxis; Cytokine; Inflammatory response; Sensory transduction;
KW Signal.
FT SIGNAL 1 23 Small inducible cytokine A4.
FT CHAIN 24 92
FT DISULFID 34 58 By similarity.
FT DISULFID 35 74 By similarity.
SQ SEQUENCE 92 AA; 10166 MW; 8853FDS8FDE61BAC CRC64;

Query Match 52.4%; Score 218; DB 1; Length 92;
Best Local Similarity 50.0%; Pred. No. 1.3e-16;
Matches 35; Conservative 16; Mismatches 19; Indels 0; Gaps 0;

QY 5 SSSRGPHPSRCCTYYTYTKIPRORIMDYETNSQSKPGIVFITKRGHSVCTNPSDKW 64
DB 23 SAPWGSPPFTSCCSTYSRQHRSPVMDYETISLCSKRAVVFITKRGROI CANPSEPMV 82
QY 65 QDYIKDKKEN 74
DB 83 TRVMSDLELN 92

RESULT 8

OSONM4 HUMAN
ID OSONM4 HUMAN PRELIMINARY; PRT; 92 AA.
AC OSONM4
DT 01-OCT-2002 (TREMBLrel. 22, Created)
DT 01-OCT-2002 (TREMBLrel. 22, Last sequence update)
DT 13-SEP-2005 (TREMBLrel. 31, Last annotation update)
DE Macrophage inflammatory protein-1b2 (CC chemokine ligand 4L1).
GN Homo sapiens (Human).
OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homnidae;
OC Homo.
NCBI_TaxID=9606;
CX (1)
RN NUCLEOTIDE SEQUENCE.
RA NIDBS R.V., Barcellos L.F., Tomson J.R.;
RL Submitted (FEB-2002) to the EMBL/GenBank/DBJ databases.
RP PubMed=15843566;
RX Colobran R., Adreani P., Ashhad Y., Llano A., Este J.A., Dominguez O.,
RA Pujol-Borrell R., Juan M.,
RT "Multiple Products Derived from Two CCL4 Loci: High Incidence of a New
Polymorphism in HIV Patients."
RL J. Immunol. 174:1565-5664(2005).
DR EMBL; AY079147; AAL87008.1; -; Genomic_DNA.
DR EMBL; AY766460; AAX07294.1; -; Genomic_DNA.
DR PIR; C60407; C60407.
DR HSSP; P13236; 1HUM.
DR SMR; Q8NHM4; 24-92.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0008009; F:chemokine activity; IEA.
DR GO; GO:0006935; P:chemotaxis; IEA.
DR GO; GO:0006955; P:immune response; IEA.
DR InterPro; IPR000827; CC:chemokine_sml.
DR InterPro; IPR001811; Chemokine_il8.
DR InterPro; IPR008105; Lymphocactin.
DR Pfam; PF00048; Il8; 1.
DR PRINTS; PRO1731; LYMPHOTACTIN.
DR SMART; SMO0199; SCY; 1.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
SQ SEQUENCE 92 AA; 10166 MW; 4C8D01B926CDB882 CRC64;

Query Match 52.4%; Score 218; DB 2; Length 92;
Best Local Similarity 51.4%; Pred. No. 1.3e-16;
Matches 36; Conservative 15; Mismatches 19; Indels 0; Gaps 0;
QY 5 SSSRGPHPSRCCTYYTYTKIPRORIMDYETNSQSKPGIVFITKRGHSVCTNPSDKW 64

DB 23 SAPWGSPPFTSCCSTYSRQHRSPVMDYETISLCSQPAVVFQTKRGKQVCADPSSSW 82
QY 65 QDYIKDKKEN 74
DB 83 QEVYVDLELN 92

RESULT 9

OSONV9 MOUSE
ID OSONV9 MOUSE PRELIMINARY; PRT; 92 AA.
AC OSONV9
DT 01-FEB-2005 (TREMBLrel. 29, Created)
DT 01-FEB-2005 (TREMBLrel. 29, Last sequence update)
DT 01-FEB-2005 (TREMBLrel. 29, Last annotation update)
DE Chemokine (C-C motif) ligand 4.
GN Name=Ccl4; Synonyms=ccl14; ORFNames=RP23-320E6.8-001;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Murinae; Mus.
NCBI_TaxID=10090;
CX (1)
RN NUCLEOTIDE SEQUENCE.
RA Johnson C.;
RL Submitted (FEB-2005) to the EMBL/GenBank/DBJ databases.
DR EMBL; AL596122; CA125137.1; -; Genomic_DNA.
DR MGI; MGI:98261; Ccl4.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0008009; F:chemokine activity; IEA.
DR GO; GO:0006955; P:immune response; IEA.
SQ SEQUENCE 92 AA; 10168 MW; 8853FDS8FDE61BAC CRC64;

Query Match 52.4%; Score 218; DB 2; Length 92;
Best Local Similarity 50.0%; Pred. No. 1.3e-16;
Matches 35; Conservative 16; Mismatches 19; Indels 0; Gaps 0;

QY 5 SSSRGPHPSRCCTYYTYTKIPRORIMDYETNSQSKPGIVFITKRGHSVCTNPSDKW 64
DB 23 SAPWGSPPFTSCCSTYSRQHRSPVMDYETISLCSKRAVVFITKRGROI CANPSEPMV 82
QY 65 QDYIKDKKEN 74
DB 83 TRVMSDLELN 92

RESULT 10

CCL3L HUMAN
ID CCL3L HUMAN STANDARD; PRT; 93 AA.
AC P16619; Q96168; 15, Created)
DT 01-AUG-1990 (Rel. 15, Last sequence update)
DT 01-AUG-1990 (Rel. 15, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Small inducible cytokine A3-like 1 precursor (Tonsillar lymphocyte
LD78 beta protein) (LD78-beta(1-70)) (G0/G1 switch regulatory protein
19-2) (G0S19-2 protein) (PAT 464.2) [Contains: LD78-beta(3-70); LD78-
beta(5-70)].
GN Name=CCL3L; Synonyms=GOS19-2, SCV33L1;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homnidae;
OC Homo.
NCBI_TaxID=9606;
CX (1)
RN NUCLEOTIDE SEQUENCE.
RA TISSUR-Blood;
RX MEDLINE=90287102; PubMed=1972563;
RA Irving S.G., Zipfel P.F., Balke J.,
RA Burd P.R., Stebenlist U., Kelly K.,
RT "Two inflammatory mediator cytokine genes are closely linked and
variably amplified on chromosome 17q."
RL Nucleic Acids Res. 18:3261-3270(1990).
[2]

RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=91103879; PubMed=2271120;
 RA Blum S., Forsdyke R.E., Forsdyke D.R.;
 RT "Three human homologs of a murine gene encoding an inhibitor of stem
 cell proliferation.";
 RL DNA Cell Biol. 9:589-602 (1990).
 RN [3]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=90287155; PubMed=1694014;
 RA Nakao M., Nomiyama H., Shimada K.;
 RT "Structures of human genes coding for cytokine LD78 and their
 expression.";
 RL Mol. Cell. Biol. 10:3646-3658 (1990).
 RN [4]
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
 RC TISSUE=pancreas, spleen;
 RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Strauberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shennan C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh P.,
 RA Diatchenko L., Marinova K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stedman M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Ueda T.B., Toshiyuki S., Cantini P., Prange C.,
 RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaly S.J.,
 RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gutarra P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulys S.W.,
 RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahey J., Helton E., Kettelman M., Madan A., Rodriguez S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schultz J., Myers R.W.,
 RA Butlerfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
 RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 and mouse cDNA sequences.";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
 RN [5]
 RP PROTEIN SEQUENCE OF 24-38.
 RX PubMed=15340161; DOI=10.1110/ps.04682504;
 RA Zhang Z., Henzel W.J.;
 RT "Signal peptide prediction based on analysis of experimentally
 verified cleavage sites.";
 RL Protein Sci. 13:2819-2824 (2004).
 RN [6]
 RP IDENTIFICATION OF LD78-BETA(3-70) AND LD78-BETA(5-70), N-TERMINAL
 PROCESSING AND FUNCTION.
 RX MEDLINE=20417739; PubMed=10961862;
 RA Proost P., Menten P., Struyf S., Schutysse E., De Weester I.,
 RA Van Damme J.;
 RT "Cleavage by CD26/dipeptidyl peptidase IV converts the chemokine
 LD78beta into a most efficient monocyte attractant and CCR1 agonist.";
 RL Blood 96:1674-1680 (2000).
 CC -I- FUNCTION: Chemotactic for monocytes. Is a ligand for CCR5.
 CC Recombinant small inducible cytokine B10 induces a dose-dependent
 CC inhibition of macrophage tropic HIV-1 strains. The processed form
 CC LD78-beta(3-70) shows a 20-fold to 30-fold higher chemotactic
 CC activity and is also a ligand for CCR1.
 CC -I- SUBCELLULAR LOCATION: Secreted.
 CC -I- PTM: The N-terminal processed forms LD78-beta(3-70) and LD78-
 CC beta(5-70) are produced by proteolytic cleavage after secretion
 CC from peripheral blood monocytes. The cleavage to yield LD78-
 CC beta(3-70) is probably achieved by DPP4.
 CC -I- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
 CC -----
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 CC between the Swiss Institute of Bioinformatics and the EMBL outstation-
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use as long as its content is in no way modified and this statement is not
 CC removed.
 CC -----
 CC EMBL; X52149; CAA36397.1; -; mRNA.
 CC EMBL; M24110; AAA35859.1; -; Genomic_DNA.

DR EMBL; D90145; BAA14173.1; -; Genomic_DNA.
 DR EMBL; BC007783; AAH07783.1; -; mRNA.
 DR EMBL; BC027888; AAH27888.1; -; mRNA.
 DR PIR; B35673; B35673.
 DR HSSP; P10147; 1B50.
 DR SMR; P16619; 26-93.
 DR HGNC; HGNC:10628; CCL3L1.
 DR H-INDB; HIX0020418; -.
 DR H-INDB; HIX0023281; -.
 DR MIM; 601395; -.
 DR GO; GO:0005576; C:extracellular region, NAS.
 DR GO; GO:0008009; P:chemokine activity, NAS.
 DR GO; GO:0006935; P:chemotaxis, NAS.
 DR GO; GO:0006954; P:inflammatory response, TAS.
 DR InterPro; IPR000827; CC_Chemokine_sm.
 DR InterPro; IPR001811; Chemokine_IL8.
 DR Pfam; PF00048; IL8; 1.
 DR SMART; SM00199; SCY; 1.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KM Chemotaxis; Cytokine; Direct protein sequencing; Sensory transduction;
 KW Signal.
 FT SIGNAL 1 23
 FT CHAIN 24 93 Small inducible cytokine A3-like 1.
 FT CHAIN 26 93 LD78-beta(3-70).
 FT CHAIN 28 93 LD78-beta(5-70).
 FT SITE 25 26 Cleavage (by DPP4) (probable).
 FT DISULFID 34 58 By similarity.
 FT DISULFID 35 74 By similarity.
 FT CONFLICT 91 91 L->P (in Ref. 4; AAH07783).
 SQ SEQUENCE 93 AA; 10161 MW; A7A79E774006D61E CRC64;

 QY Query Match 52.4%; Score 218; DB 1; Length 93;
 DB Best Local Similarity 55.0%; Pred. No. 1.3e-16; Gaps 0;
 DB Matches 33; Conservative 16; Mismatches 11; Indels 0;

 13 PSECCFTYTYKIPRORIMDYETNSQCKSPGIVFTTRGSHSVCTNPSPDKWQDYIKDKM 72
 31 PTACCFSTYSROIQNFADYFETISQCKSPSVIFLTRGRGVCAADPSEWQKVSDLE 90

 RESULT 11
 OS3YAS HUMAN
 ID OS3YAS_HUMAN PRELIMINARY; PRT; 93 AA.
 AC OS3YAS;
 DT 13-SEP-2005 (TREMBLrel. 31, Created)
 DT 13-SEP-2005 (TREMBLrel. 31, Last sequence update)
 DT 13-SEP-2005 (TREMBLrel. 31, Last annotation update)
 DE Chemokine (C-C motif) ligand 3.
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominiidae;
 OC Homo.
 OX NCBI_TaxID=9606;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RA Kalline N., Chen X., Rolfs A., Halleck A., Hines L., Eisenstein S.,
 RA Khandyana M., Raphael J., Moreira D., Kelley T., Labaer J., Lin Y.,
 RA Phelan M., Farmer A.;
 RT "Cloning of human full-length cDNAs in BD Creator (TM) System Donor
 vector.";
 RL Submitted (May-2003) to the EMBL/Genbank/DDJ databases.
 DR EMBL; BT006783; AAF5429.1; -; mRNA.
 SQ SEQUENCE 93 AA; 10144 MW; A7A78374006D61E CRC64;

 Query Match 52.4%; Score 218; DB 2; Length 93;
 Best Local Similarity 55.0%; Pred. No. 1.3e-16;
 Matches 33; Conservative 16; Mismatches 11; Indels 0; Gaps 0;

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RESULT 12
CCL4_RABIT
ID CCL4_RABIT STANDARD; PRT; 92 AA.
DR 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DR 10-MAY-2005 (Rel. 47, Last annotation update)
DB Small inducible cytokine A4 precursor (CCL4) (Macrophage inflammatory
protein 1-beta) (MIP-1-beta) (Immune activation protein 2) (ACT-2).
GN Name=CCL4; Synonyms=SCYA4;
OS Oryctolagus cuniculus (Rabbit).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Lagomorpha; Leporidae;
OC Oryctolagus.
OX NCBI_TaxID=9986;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=New Zealand white;
RX MEDLINE=94198229; PubMed=8148323;
RA Mori S., Goto K., Goto F., Mutakami K., Ohkawara S., Yoshinaga M.;
RT "Dynamic changes in mRNA expression of neutrophils during the course
of acute inflammation in rabbits.";
RL Int. Immunol. 6:149-156 (1994).
CC -1- FUNCTION: Monokine with inflammatory and chemokinetic properties
(CC (By similarity)).
CC -1- SUBUNIT: Homodimer (By similarity).
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- SIMILARITY: Belongs to the interferon beta (chemokine CC) family.
-----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
-----
DR EMBL; D17402; BA004226.1; -; mRNA.
DR PIR; I46730; I46730.
DR HSSP; P13236; IHM.
DR SRR; P46632; 24-92.
DR InterPro; IPR000827; CC_chemokine_gml.
DR InterPro; IPR001811; Chemokine_IL8.
DR Pfam; PF00048; IL8; 1.
DR SMART; SM00139; SCY; 1.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KM Chemotaxis; Cytokine; Inflammatory response; Sensory transduction;
KM SIGNAL.
FT SIGNAL 1 23 By similarity.
FT CHAIN 24 92 Small inducible cytokine A4.
FT DISULFID 34 58 By similarity.
FT DISULFID 74 74 By similarity.
SQ SEQUENCE 92 AA; 1066 MW; ECBA8818D42A735C CRC64;

Query Match 51.4%; Score 216; DB 1; Length 92;
Best local similarity 50.0%; Pred. No. 2.1e-16;
Matches 35; Conservative 15; Mismatches 20; Indels 0; Gaps 0;

QY 5 SSSRGPHYBSCCTTYTYKIPRQIMDYETNSQCSKPGIVFTTKGHSVCTPSPDKV 64
ID : : : : : : : : : : : : : : : : : : : : : : : : : : : :
AC : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DT 13-SEP-2005 (Tremblrel. 31, Created)
DR 13-SEP-2005 (Tremblrel. 31, Last sequence update)
DT 13-SEP-2005 (Tremblrel. 31, Last annotation update)

```

```

DR MIP-beta-like CC chemokine.
OS Anas platyrhynchos (Domestic duck).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinoptera; Aves; Neognathae; Anseriformes; Anatidae; Anas.
OX NCBI_TaxID=8839;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Mitogen stimulated spleen;
RX PubMed=15841394;
RA Steekumar E., Premraj A., Arathy D.S., Raoool T.J.;
RT "Identification, sequence characterization, and analysis of expression
profiles of three novel CC chemokines from domestic duck (Anas
platyrhynchos).";
RL Immunogenetics 57:364-373 (2005).
DR EMBL; AY641437; AAV52797.1; -; mRNA.
DR SRR; 9997 MW; 5B6FF2356423930 CRC64;
SQ SEQUENCE 90 AA; 9997 MW; 7628FBC425BED9C CRC64;

Query Match 51.4%; Score 214; DB 2; Length 90;
Best local similarity 47.9%; Pred. No. 3.5e-16;
Matches 35; Conservative 14; Mismatches 24; Indels 0; Gaps 0;

QY 2 KTSSSRGPHYBSCCTTYTYKIPRQIMDYETNSQCSKPGIVFTTKGHSVCTPSPD 61
ID : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 18 QTSAPIGSDPPTSCCTTYVQALPRSPVTDYETNSLCKPGVFTTRKGRVCANPHE 77
QY 62 KMWVDYIKDMKEN 74
ID : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 78 DWVKKYVTELELN 90

RESULT 14
Q68A20 CANPA PRELIMINARY; PRT; 92 AA.
ID Q68A20 CANPA
AC Q68A20
DT 25-OCT-2004 (Tremblrel. 28, Created)
DR 25-OCT-2004 (Tremblrel. 28, Last sequence update)
DR 01-FEB-2005 (Tremblrel. 29, Last annotation update)
DE CC Chemokine ligand 4.
GN Name=CCL4;
OS Canis familiaris (dog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
OC Canis.
OX NCBI_TaxID=9615;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Tsukui T., Sakaguchi M., Maeda S., Koyanagi M., Masuda K., Ohno K.,
RA Tsukui T., Iwabuchi S.;
RT "Expression analysis of chemokine gene in canine atopic dermatitis.";
RL Submitted (FEB-2004) to the EMBL/GenBank/DBJ databases.
RN [2]
RP NUCLEOTIDE SEQUENCE.
RA Tsukui T., Maeda S., Koyanagi M., Hashimoto R., Masuda K., Ohno K.,
RA Sakaguchi M., Tsujimoto H., Iwabuchi S.;
RT "Expression analysis of CCL4 gene in canine atopic dermatitis.";
RL Submitted (JUL-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; AB163435; BAD37148.1; -; mRNA.
DR EMBL; AB183194; BAD83842.1; -; mRNA.
DR SRR; Q68A20; 24-92.
DR Ensembl; ENSGAFG0000018164; Canis_familiaris.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0008009; F:chemokine activity; IEA.
DR GO; GO:0006955; P:immune response; IEA.
DR InterPro; IPR000827; CC_chemokine_gml.
DR InterPro; IPR001811; Chemokine_IL8.
DR Pfam; PF00048; IL8; 1.
DR SMART; SM00139; SCY; 1.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
SQ SEQUENCE 92 AA; 10197 MW; 7628FBC425BED9C CRC64;

Query Match 51.4%; Score 214; DB 2; Length 92;
Best local similarity 51.4%; Pred. No. 3.0e-16;
Matches 36; Conservative 14; Mismatches 20; Indels 0; Gaps 0;

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QY 5 SSSRGYPHPSCECTYYTYTKIPRQIRIMDYETNSQCKPGIVITTKGHSVCTNPSDKW 64
   | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
Db 23 SAPWGSPPFTACPSYTLRKIPRNFAVDYFETSSLCSPAVVQTRRGQVCANPSEBW 82
   | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
```

```
QY 65 ODYIKDMKEN 74
   | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
Db 83 QRYMDLELN 92
   | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
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RESULT 15

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CCCL3_PANTR STANDARD: PRT: 92 AA.
ID_CCL3_PANTR
AC Q51120;
DT 10-MAY-2005 (Rel. 47, Created)
DT 10-MAY-2005 (Rel. 47, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Small inducible cytokine A3 precursor (CCL3) (Macrophage inflammatory
   protein 1-alpha) (MIP-1-alpha).
GN Name=CCL3;
OS Pan troglodytes (Chimpanzee).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homidae;
OC Pan.
OX NCBI_TaxID=9598;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX PubMed:15637236; DOI=10.1126/science.1101160;
   Catano G., Nibbs R.J., Freedman B.I., Quinones M.P., Bamehaz M.J.,
   Murthy K.K., Kovin B.H., Bradley W., Clark R.A., Anderson S.A.,
   O'Connell R.D., Agan B.K., Bologna R., Sen L., Dolan M.J.,
   Ahuja S.K.;
RT "The influence of CCL3L1 gene-containing segmental duplications on
   HIV-1/AIDS susceptibility";
RL Science 307:1434-1440(2005).
CC -!- FUNCTION: Monokine with inflammatory and chemokinetic properties.
   -!- SUBCELLULAR LOCATION: Secreted (By similarity).
   -!- SIMILARITY: Belongs to the interleukin beta (chemokine CC) family.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
DR EMBL; AY864054; AAM57434.1; -; mRNA.
DR SMR; Q51120; 24-92.
DR InterPro; IPR000827; CC_chemokine_sm1.
DR InterPro; IPR001811; Chemokine_IL8.
DR Pfam; PF00048; IL8; 1.
DR SMART; SM00199; SCY; 1.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW Chemotaxis; Cytokine; Inflammatory response; Sensory transduction;
KW Signal.
FT SIGNAL 1 23 By similarity.
FT CHAIN 24 92 Small inducible cytokine A3.
FT DISULFID 33 57 By similarity.
FT DISULFID 34 73 By similarity.
SQ SEQUENCE 92 AA; 10098 MW; 3DFOB8D5D677821 CRC64;

Query Match 51.2%; Score 213; DB 1; Length 92;
Best Local Similarity 50.0%; Pred. No. 4.6e-16;
Matches 34; Conservative 17; Mismatches 17; Indels 0; Gaps 0;
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Search completed: January 10, 2006, 22:59:19
Job time : 161 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 10, 2006, 22:54:31 ; Search time 46 seconds
(without alignments)
133,000 Million cell updates/sec

Title: US-10-760-557-6

Perfect score: 416
Sequence: 1 TKTSSSSRGPHRPHSECCFTY.....VCTNPSPDKMVDYIKDMKEN 74

Scoring table:
Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued Patents AA:
1: /cgn2_6/ptodata/1/1aa/5_COMB.pep:*
2: /cgn2_6/ptodata/1/1aa/6_COMB.pep:*
3: /cgn2_6/ptodata/1/1aa/H_COMB.pep:*
4: /cgn2_6/ptodata/1/1aa/PCTUS_COMB.pep:*
5: /cgn2_6/ptodata/1/1aa/RE_COMB.pep:*
6: /cgn2_6/ptodata/1/1aa/Backfill1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	416	100.0	93	1	US-08-173-209A-2
2	416	100.0	93	1	US-08-347-492B-6
3	416	100.0	93	1	US-08-798-143-6
4	416	100.0	93	2	US-08-722-719-2
5	416	100.0	93	2	US-09-180-077-7
6	416	100.0	93	2	US-09-334-951-2
7	416	100.0	93	2	US-09-334-923A-2
8	416	100.0	93	2	US-09-334-954A-2
9	416	100.0	93	2	US-09-834-795A-30
10	416	100.0	93	2	US-09-571-013-2
11	416	100.0	93	4	PCT-US95-15484-6
12	405	97.4	72	2	US-09-567-225-1
13	394	94.7	109	2	US-09-180-077-12
14	328	54.8	86	1	US-08-421-144A-9
15	219	52.6	72	1	US-08-330-163-13
16	219	52.6	72	1	US-08-482-111-13
17	219	52.6	92	1	US-07-792-988-1
18	219	52.6	92	1	US-08-347-492B-10
19	219	52.6	92	1	US-08-375-346A-3
20	219	52.6	92	1	US-08-230-574-2
21	219	52.6	92	1	US-08-480-449-23
22	219	52.6	92	1	US-08-633-682-4
23	219	52.6	92	1	US-08-421-144A-3
24	219	52.6	92	1	US-08-660-542-23
25	219	52.6	92	1	US-08-535-116-3
26	219	52.6	92	1	US-08-598-143-10
27	219	52.6	92	1	US-08-467-123B-3

28	219	52.6	92	2	US-08-722-719-53	Sequence 53, Appl
29	219	52.6	92	2	US-08-936-772-4	Sequence 4, Appl
30	219	52.6	92	2	US-08-808-720-9	Sequence 9, Appl
31	219	52.6	92	2	US-09-395-918-4	Sequence 4, Appl
32	219	52.6	92	2	US-09-133-521-7	Sequence 7, Appl
33	219	52.6	92	2	US-08-679-493A-161	Sequence 16, App
34	219	52.6	92	2	US-08-479-603-23	Sequence 23, Appl
35	219	52.6	92	2	US-09-334-951-53	Sequence 53, Appl
36	219	52.6	92	2	US-09-334-923A-53	Sequence 36, Appl
37	219	52.6	92	2	US-09-689-693-16	Sequence 36, Appl
38	219	52.6	92	2	US-08-939-107-23	Sequence 23, Appl
39	219	52.6	92	2	US-09-151-450-3	Sequence 3, Appl
40	219	52.6	92	2	US-09-334-954A-53	Sequence 53, Appl
41	219	52.6	92	2	US-09-834-954A-33	Sequence 33, Appl
42	219	52.6	92	2	US-09-467-638-9	Sequence 9, Appl
43	219	52.6	92	2	US-09-067-447B-23	Sequence 23, Appl
44	219	52.6	92	2	US-08-479-620-23	Sequence 23, Appl
45	219	52.6	92	2	US-09-571-013-55	Sequence 55, Appl

ALIGNMENTS

SEQUENCE COMPARISON A

RESULT 1
US-08-173-209A-2
Sequence 2, Application US/08173209A
Patent No. 5556767
GENERAL INFORMATION:
APPLICANT: LI, ET AL.
TITLE OF INVENTION: Macrophage Inflammatory Protein Gamma
NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESSES:
ADDRESSER: CARELLA, BYRNE, BAIN, GILFILLAN,
ADDRESSEE: CECCHI, STEWART & OLSTEIN
STREET: 6 BECKER FARM ROAD
CITY: ROSELAND
STATE: NEW JERSEY
COUNTRY: USA
ZIP: 07068
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 INCH DISKETTE
COMPUTER: IBM PS/2
OPERATING SYSTEM: MS-DOS
SOFTWARE: WORD PERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08173, 209A
FILING DATE: 22 DECEMBER 1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: FERRARO, GREGORY D.
REGISTRATION NUMBER: 36,134
REFERENCE/DOCKET NUMBER: 325800-51
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-994-1700
TELEFAX: 201-994-1744
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 93 AMINO ACIDS
TYPE: AMINO ACID
STRANDEDNESS: LINEAR
TOPOLOGY: LINEAR
MOLECULE TYPE: PROTEIN
US-08-173-209A-2
Query Match 100.0%; Score 416; DB 1; Length 93;
Best Local Similarity 100.0%; Pred. No. 3.4e-43;
Matches 74; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
1 TKTSSSSRGPHRPHSECCFTYTTTYKIPRORIMDYETNSQCSKPGIVITKRGHSVCTNPS 60
|||||

Db 20 TKTESSRGPHBSECFTYTYTKIPRORIMDYETNSQCSKPGIVITRKHSVCTNPS 79
QY 61 |||||
Db 80 DKWVDIYIKMKEN 93

RESULT 2
US-08-347-492B-6
Sequence 6, Application US/08347492B
Patent No. 5602008
GENERAL INFORMATION:
APPLICANT: Wilde, Craig G.
APPLICANT: Hawkins, Phillip R.
APPLICANT: Bandman, Olga
APPLICANT: Seilhamer, Jeffrey J.
TITLE OF INVENTION: EXPRESSED CHEMOKINES, THEIR
NUMBER OF INVENTION: PRODUCTION AND USES
NUMBER OF SEQUENCES: 12
CORRESPONDENCE ADDRESSES:
ADDRESSER: Incyte Pharmaceuticals, Inc.
STREET: 3174 Porter Drive
CITY: Palo Alto
STATE: CA
COUNTRY: U.S.
ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSeq Version 1.5
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/347,492B
FILING DATE: 29-NOV-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/303,241
FILING DATE: 07-SEP-1994
APPLICATION NUMBER: 08/320,011
FILING DATE: 05-OCT-1994
ATTORNEY/AGENT INFORMATION:
NAME: Luther, Barbara J
REGISTRATION NUMBER: 33,954
REFERENCE/DOCKET NUMBER: PF-0024
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
TELEFAX: 415-852-0195
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 93 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
IMMEDIATE SOURCE:
LIBRARY: PITUITARY
CLONE: 115571
US-08-347-492B-6

Query Match 100.0%; Score 416; DB 1; Length 93;
Best Local Similarity 100.0%; Pred. No. 3,4e-43;
Matches 74; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 TKTESSRGPHBSECFTYTYTKIPRORIMDYETNSQCSKPGIVITRKHSVCTNPS 60
Db 20 TKTESSRGPHBSECFTYTYTKIPRORIMDYETNSQCSKPGIVITRKHSVCTNPS 79
QY 61 DKWVDIYIKMKEN 74
Db 80 DKWVDIYIKMKEN 93

RESULT 3
US-08-798-143-6

Sequence 6, Application US/08798143
Patent No. 5936068
GENERAL INFORMATION:
APPLICANT: Wilde, Craig G.
APPLICANT: Hawkins, Phillip R.
APPLICANT: Bandman, Olga
APPLICANT: Seilhamer, Jeffrey J.
TITLE OF INVENTION: EXPRESSED CHEMOKINES, THEIR
NUMBER OF INVENTION: PRODUCTION AND USES
NUMBER OF SEQUENCES: 12
CORRESPONDENCE ADDRESSES:
ADDRESSER: Incyte Pharmaceuticals, Inc.
STREET: 3174 Porter Drive
CITY: Palo Alto
STATE: CA
COUNTRY: U.S.
ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSeq Version 1.5
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/798,143
FILING DATE: 10-FEB-1997
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/347,492
FILING DATE: 29-NOV-1994
APPLICATION NUMBER: 08/303,241
FILING DATE: 07-SEP-1994
APPLICATION NUMBER: 08/320,011
FILING DATE: 05-OCT-1994
ATTORNEY/AGENT INFORMATION:
NAME: Luther, Barbara J
REGISTRATION NUMBER: 33,954
REFERENCE/DOCKET NUMBER: PF-0024
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
TELEFAX: 415-852-0195
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 93 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
IMMEDIATE SOURCE:
LIBRARY: PITUITARY
CLONE: 115571
US-08-798-143-6

Query Match 100.0%; Score 416; DB 1; Length 93;
Best Local Similarity 100.0%; Pred. No. 3,4e-43;
Matches 74; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 TKTESSRGPHBSECFTYTYTKIPRORIMDYETNSQCSKPGIVITRKHSVCTNPS 60
Db 20 TKTESSRGPHBSECFTYTYTKIPRORIMDYETNSQCSKPGIVITRKHSVCTNPS 79
QY 61 DKWVDIYIKMKEN 74
Db 80 DKWVDIYIKMKEN 93

RESULT 4
US-08-722-719-2
Sequence 2, Application US/08722719
Patent No. 6001606
GENERAL INFORMATION:
APPLICANT: ROSEN, CRAIG A.
APPLICANT: RUBIN, STEVEN M.
APPLICANT: LI, HAODONG

```
APPLICANT: ADAMS, MARK D.
TITLE OF INVENTION: THERAPEUTIC COMPOSITIONS AND METHODS FOR
TREATING DISEASE STATES WITH MYELOID PROGENITOR INHIBITORY
TITLE OF INVENTION: TREATING DISEASE STATES WITH MYELOID PROGENITOR INHIBITORY
TITLE OF INVENTION: FACTOR-1 (MPF-1), MONOCYTE COLONY INHIBITORY FACTOR
TITLE OF INVENTION: (M-CIF), AND MACROPHAGE INHIBITORY FACTOR-4 (MIP-4)
NUMBER OF SEQUENCES: 64
CORRESPONDENCE ADDRESS:
ADDRESSER: STERN, KASSLER, GOLDSTEIN & FOX P.L.L.C.
STREET: 1100 NEW YORK AVENUE, N.W., SUITE 600
CITY: WASHINGTON
STATE: DC
COUNTRY: USA
ZIP: 20005-3934
COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/722,719
FILING DATE: 30-SEP-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/173,209
FILING DATE: 22-DEC-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/208,339
FILING DATE: 08-MAR-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/446,881
FILING DATE: 05-MAY-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/465,682
FILING DATE: 06-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/468,775
FILING DATE: 06-JUN-1995
ATTORNEY/AGENT INFORMATION:
NAME: STEFFE, ERIC K.
REGISTRATION NUMBER: 36,688
REFERENCE/DOCKET NUMBER: 1488.0330007
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 371-2600
TELEFAX: (202) 371-2540
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 93 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-722-719-2

Query Match          100.0%; Score 416; DB 2; Length 93;
Best Local Similarity 100.0%; Pred. No. 3.4e-43;
Matches 74; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TKTSSSRGYPHPSECCFTYTYTKIPRORIMDYETNSQCKRGIVFTIKRGHSVCTNPS 60
DB 20 TKTSSSRGYPHPSECCFTYTYTKIPRORIMDYETNSQCKRGIVFTIKRGHSVCTNPS 79

QY 61 DKWVDYIKDMKEN 74
DB 80 DKWVDYIKDMKEN 93

RESULT 5
US-09-180-077-7
Sequence 7, Application US/09180077A
Patent No. 6180773
GENERAL INFORMATION:
APPLICANT: Forssmann, Wolf-Georg
APPLICANT: Pardigol, Andreas
APPLICANT: Megett, Hans-Jurgen
```

```
APPLICANT: Schulz-Knappe, Peter
TITLE OF INVENTION: NEW CC TYPE CHEMOKINES
FILE REFERENCE: 10496/B63140USO
CURRENT APPLICATION NUMBER: US/09/180,077A
CURRENT FILING DATE: 1998-12-30
EARLIER APPLICATION NUMBER: PCT/EP97/02217
EARLIER FILING DATE: 1997-04-30
EARLIER APPLICATION NUMBER: DE 196 17 312.4
EARLIER FILING DATE: 1996-04-30
NUMBER OF SEQ ID NOS: 12
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 7
LENGTH: 93
TYPE: PRT
ORGANISM: Homo sapiens
US-09-180-077-7
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Query Match          100.0%; Score 416; DB 2; Length 93;
Best Local Similarity 100.0%; Pred. No. 3.4e-43;
Matches 74; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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```
QY 1 TKTSSSRGYPHPSECCFTYTYTKIPRORIMDYETNSQCKRGIVFTIKRGHSVCTNPS 60
DB 20 TKTSSSRGYPHPSECCFTYTYTKIPRORIMDYETNSQCKRGIVFTIKRGHSVCTNPS 79

QY 61 DKWVDYIKDMKEN 74
DB 80 DKWVDYIKDMKEN 93
```

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RESULT 6
US-09-334-951-2
Sequence 2, Application US/09334951
Patent No. 6451562
GENERAL INFORMATION:
APPLICANT: Ruben, Steven M.
APPLICANT: Li, Haodong
TITLE OF INVENTION: Myeloid Progenitor Inhibitory Factor-1 (MPF-1)
FILE REFERENCE: 1488.033000B
CURRENT APPLICATION NUMBER: US/09/334,951
CURRENT FILING DATE: 1999-06-17
EARLIER APPLICATION NUMBER: US 08/208,339
EARLIER FILING DATE: 1994-03-08
EARLIER APPLICATION NUMBER: US 08/446,881
EARLIER FILING DATE: 1995-05-05
EARLIER APPLICATION NUMBER: US 08/465,682
EARLIER FILING DATE: 1995-06-06
EARLIER APPLICATION NUMBER: US 08/468,775
EARLIER FILING DATE: 1995-06-06
EARLIER APPLICATION NUMBER: US 08/722,719
EARLIER FILING DATE: 1996-09-30
NUMBER OF SEQ ID NOS: 65
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 2
LENGTH: 93
TYPE: PRT
ORGANISM: Homo sapiens
US-09-334-951-2
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Query Match          100.0%; Score 416; DB 2; Length 93;
Best Local Similarity 100.0%; Pred. No. 3.4e-43;
Matches 74; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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QY 1 TKTSSSRGYPHPSECCFTYTYTKIPRORIMDYETNSQCKRGIVFTIKRGHSVCTNPS 60
DB 20 TKTSSSRGYPHPSECCFTYTYTKIPRORIMDYETNSQCKRGIVFTIKRGHSVCTNPS 79

QY 61 DKWVDYIKDMKEN 74
DB 80 DKWVDYIKDMKEN 93
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RESULT 7
US-09-334-923A-2
; Sequence 2, Application US/09334923A
; Patent No. 648925
; GENERAL INFORMATION:
; APPLICANT: Ruben, Steven M.
; TITLE OF INVENTION: Macrophage Inflammatory Protein-4 (MIP-4) Polypeptides (As Amended)
; FILE REFERENCE: 1488.033000D
; CURRENT FILING DATE: 1999-06-17
; PRIOR APPLICATION NUMBER: US 08/208,339
; PRIOR FILING DATE: 1994-03-08
; PRIOR APPLICATION NUMBER: US 08/446,881
; PRIOR FILING DATE: 1995-05-05
; PRIOR APPLICATION NUMBER: US 08/465,682
; PRIOR FILING DATE: 1995-06-06
; PRIOR APPLICATION NUMBER: US 08/468,775
; PRIOR FILING DATE: 1995-06-06
; PRIOR APPLICATION NUMBER: US 08/722,719
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 93
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-334-923A-2

Query Match      100.0%; Score 416; DB 2; Length 93;
Best Local Similarity 100.0%; Pred. No. 3,4e-43;
Matches 74; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TKTSSSRGPHSPBECCTTTTYYKIPRQIMDYETNSQCSKPGIVFTTKRGHVCYNPS 60
Db 20 TKTSSSRGPHSPBECCTTTTYYKIPRQIMDYETNSQCSKPGIVFTTKRGHVCYNPS 79

QY 61 DKWVDYIKDMKEN 74
Db 80 DKWVDYIKDMKEN 93

RESULT 8
US-09-334-954A-2
; Sequence 2, Application US/09334954A
; Patent No. 6623942
; GENERAL INFORMATION:
; APPLICANT: Ruben, Steven M.
; TITLE OF INVENTION: Macrophage Inflammatory Protein-4 (MIP-4) Polynucleotides
; FILE REFERENCE: 1488.033000C
; CURRENT FILING DATE: 1999-06-17
; PRIOR APPLICATION NUMBER: US 08/208,339
; PRIOR FILING DATE: 1994-03-08
; PRIOR APPLICATION NUMBER: US 08/446,881
; PRIOR FILING DATE: 1995-05-05
; PRIOR APPLICATION NUMBER: US 08/465,682
; PRIOR FILING DATE: 1995-06-06
; PRIOR APPLICATION NUMBER: US 08/468,775
; PRIOR FILING DATE: 1995-06-06
; PRIOR APPLICATION NUMBER: US 08/722,719
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 93
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-334-954A-2

Query Match      100.0%; Score 416; DB 2; Length 93;
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Best Local Similarity 100.0%; Pred. No. 3,4e-43;
Matches 74; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TKTSSSRGPHSPBECCTTTTYYKIPRQIMDYETNSQCSKPGIVFTTKRGHVCYNPS 60
Db 20 TKTSSSRGPHSPBECCTTTTYYKIPRQIMDYETNSQCSKPGIVFTTKRGHVCYNPS 79

QY 61 DKWVDYIKDMKEN 74
Db 80 DKWVDYIKDMKEN 93

RESULT 9
US-09-834-795A-30
; Sequence 30, Application US/09834795A
; Patent No. 6723518
; GENERAL INFORMATION:
; APPLICANT: Lawrence, Papeidero
; APPLICANT: Lyn, Dyster
; TITLE OF INVENTION: Detection and Treatment of Breast Cancer
; FILE REFERENCE: 3380/1127-US3
; CURRENT FILING DATE: 2001-04-12
; PRIOR APPLICATION NUMBER: 09/146,580
; PRIOR FILING DATE: 1998-09-03
; PRIOR APPLICATION NUMBER: 60/071,899
; PRIOR FILING DATE: 1998-01-20
; PRIOR APPLICATION NUMBER: 60/092,155
; PRIOR FILING DATE: 1998-07-09
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 30
; LENGTH: 93
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-834-795A-30

Query Match      100.0%; Score 416; DB 2; Length 93;
Best Local Similarity 100.0%; Pred. No. 3,4e-43;
Matches 74; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TKTSSSRGPHSPBECCTTTTYYKIPRQIMDYETNSQCSKPGIVFTTKRGHVCYNPS 60
Db 20 TKTSSSRGPHSPBECCTTTTYYKIPRQIMDYETNSQCSKPGIVFTTKRGHVCYNPS 79

QY 61 DKWVDYIKDMKEN 74
Db 80 DKWVDYIKDMKEN 93

RESULT 10
US-09-571-013-2
; Sequence 2, Application US/09571013
; Patent No. 6811773
; GENERAL INFORMATION:
; APPLICANT: GENTZ, REINER L.
; TITLE OF INVENTION: THERAPEUTIC COMPOSITIONS AND METHODS FOR
; TREATING DISEASE STATES WITH MYELOID PROGENITOR INHIBITORY
; FACTOR-1 (MIF-1), MONOCYTE COLONY INHIBITORY FACTOR
; (M-CIF), AND MACROPHAGE INHIBITORY FACTOR-4 (MIP-4)
; NUMBER OF SEQUENCES: 60
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: STERN, KESSLER, GOLDSTEIN & FOX P.L.L.C.
; STREET: 1100 NEW YORK AVENUE, N.W., SUITE 600
; CITY: WASHINGTON
; STATE: DC
; COUNTRY: USA
; ZIP: 20005-3934
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/571,013
FILING DATE: 15-May-2000
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/941,020
FILING DATE: 30-SEP-1997
APPLICATION NUMBER: US 60/027,299
FILING DATE: 30-SEP-1996
APPLICATION NUMBER: US 60/027,300
FILING DATE: 30-SEP-1996
ATTORNEY/AGENT INFORMATION:
NAME: STEFFE, ERIC K.
REGISTRATION NUMBER: 36,688
REFERENCE/DOCKET NUMBER: 1488.0330009
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 371-2600
TELEFAX: (202) 371-2540
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 93 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 2:
US-09-571-013-2

*Query Match 100.0%; Score 416; DB 2; Length 93;
Best Local Similarity 100.0%; Pred. No. 3.4e-43;
Matches 74; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TKTSSSRGYPHPSGCCFTYTTTKIPRORIMDYETNSQSKPGIVFITKRGHSVCTNPS 60
DB 20 TKTSSSRGYPHPSGCCFTYTTTKIPRORIMDYETNSQSKPGIVFITKRGHSVCTNPS 79

QY 61 DKWVDYIKDMKEN 74
DB 80 DKWVDYIKDMKEN 93

RESULT 11
PCT-US95-15484-6
; Sequence 6, Application PC/TUS9515484
; GENERAL INFORMATION:
; APPLICANT: INCYTE PHARMACEUTICALS, INC.
; TITLE OF INVENTION: EXPRESSED CHEMOKINES, THEIR PRODUCTION AND
; NUMBER OF SEQUENCES: 6
; CORRESPONDENCE ADDRESS:
; ADDRESS: INCYTE PHARMACEUTICALS, INC.
; STREET: 3174 PORTER DRIVE
; CITY: PALO ALTO
; STATE: CA
; COUNTRY: USA
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US95/15484
; FILING DATE: 29-NOV-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/347,492
; FILING DATE: 29-NOV-1994
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: LUTHER, BARBARA J
; REGISTRATION NUMBER: 33954

REFERENCE/DOCKET NUMBER: PF-0024 PCT
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
TELEFAX: 415-852-0195
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 93 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: unknown
MOLECULE TYPE: peptide
IMMEDIATE SOURCE:
LIBRARY: pituitary gland
CLONE: 111571
PCT-US95-15484-6

*Query Match 100.0%; Score 416; DB 4; Length 93;
Best Local Similarity 100.0%; Pred. No. 3.4e-43;
Matches 74; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TKTSSSRGYPHPSGCCFTYTTTKIPRORIMDYETNSQSKPGIVFITKRGHSVCTNPS 60
DB 20 TKTSSSRGYPHPSGCCFTYTTTKIPRORIMDYETNSQSKPGIVFITKRGHSVCTNPS 79

QY 61 DKWVDYIKDMKEN 74
DB 80 DKWVDYIKDMKEN 93

RESULT 12
US-09-567-225-1
; Sequence 1, Application US/09567225
; Patent No. 6713052
; GENERAL INFORMATION:
; APPLICANT: White, John R.
; APPLICANT: Pelus, Louis
; APPLICANT: Li, Haodong
; APPLICANT: Kreider, Brent L.
; TITLE OF INVENTION: No. 6713052el Chemokine for Mobilizing Stem Cells
; FILE REFERENCE: 1488.1550004
; CURRENT APPLICATION NUMBER: US/09/567,225
; PRIOR FILING DATE: 2000-10-09
; PRIOR APPLICATION NUMBER: US 09/225,501
; PRIOR FILING DATE: 1999-01-06
; PRIOR APPLICATION NUMBER: US 60/006,051
; PRIOR FILING DATE: 1995-10-24
; PRIOR APPLICATION NUMBER: US 08/740,033
; PRIOR FILING DATE: 1996-10-23
; NUMBER OF SEQ ID NOS: 19
; SOFTWARE: Patentin version 3.0
; SEQ ID NO 1
; LENGTH: 72
; TYPE: PRT
; ORGANISM: Ckbeta-1
US-09-567-225-1

*Query Match 97.4%; Score 405; DB 2; Length 72;
Best Local Similarity 100.0%; Pred. No. 5.5e-42;
Matches 72; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TKTSSSRGYPHPSGCCFTYTTTKIPRORIMDYETNSQSKPGIVFITKRGHSVCTNPS 60
DB 1 TKTSSSRGYPHPSGCCFTYTTTKIPRORIMDYETNSQSKPGIVFITKRGHSVCTNPS 60

QY 61 DKWVDYIKDMK 72
DB 61 DKWVDYIKDMK 72

RESULT 13
US-09-180-077-12
; Sequence 12, Application US/09180077A
; Patent No. 6180773

GENERAL INFORMATION:
APPLICANT: Forssmann, Wolf-Georg
APPLICANT: Paridigol, Andreas
APPLICANT: Magert, Hans-Juergen
APPLICANT: Schulz-Knappe, Peter
TITLE OF INVENTION: NEW CC TYPE CHEMOKINES
FILE REFERENCE: 10496/P63140USO
CURRENT APPLICATION NUMBER: US/09/180,077A
EARLIER FILING DATE: 1998-12-30
EARLIER APPLICATION NUMBER: PCT/EP97/02217
EARLIER FILING DATE: 1997-04-30
EARLIER APPLICATION NUMBER: DE 196 17 312.4
NUMBER OF SEQ ID NOS: 12
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 12
LENGTH: 109
TYPE: PRT
ORGANISM: Homo sapiens
US-09-180-077-12

Query Match 94.7%; Score 394; DB 2; Length 109;
Best Local Similarity 81.1%; Pred. No. 2e-40; 0; Indels 16; Gaps 1;
Matches 73; Conservative 1; Mismatches 0;

QY 1 TKTSSSR-----GPHPSCECTTYTYTKIPRORIMDYETNSQCSKPG 44
DB 20 TKTSSSQTGKPKRVVKIQLKLVGGPHPSCECTTYTYTKIPRORIMDYETNSQCSKPG 79
QY 45 IVFTTKRGHSVCTNPSDKMVDYTKDMKEN 74
DB 80 IVFTTKRGHSVCTNPSDKMVDYTKDMKEN 109

RESULT 14
US-08-421-144A-9
Sequence 9, Application US/08421144A
Patent No. 5874211
GENERAL INFORMATION:
APPLICANT: BANDMAN, OLGA
APPLICANT: COLEMAN, ROGER
APPLICANT: STUART, SUSAN G.
TITLE OF INVENTION: NEW CHEMOKINE EXPRESSED IN EOSINOPHILS
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSER: INCYTE PHARMACEUTICALS, INC.
STREET: 3174 Porter Drive
CITY: Palo Alto
STATE: CA
COUNTRY: USA
ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/421,144A
FILING DATE: 13-APR-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Inubet, Barbara J.
REGISTRATION NUMBER: 33954
REFERENCE/DOCKET NUMBER: PR-0031 US
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
TELEFAX: 415-852-0195
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 86 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear

MOLECULE TYPE: protein
US-08-421-144A-9

Query Match 54.8%; Score 228; DB 1; Length 86;
Best Local Similarity 64.9%; Pred. No. 2.5e-20;
Matches 37; Conservative 10; Mismatches 10; Indels 0; Gaps 0;

QY 13 PSECCFTTYTYTKIPRORIMDYETNSQCSKPGIVFTTKRGHSVCTNPSDKMVDYTK 69
DB 22 FTTCCEFTYTKIPRORIMDYETNSQCSKPGIVFTTKRGHSVCTNPSDKMVDYTK 78

RESULT 15
US-08-330-163-13

Sequence 13, Application US/08330163
Patent No. 5656724

GENERAL INFORMATION:
APPLICANT: Daly, Thomas J.
APPLICANT: Laba, Gregory J.
TITLE OF INVENTION: Chemokine-like Proteins and Methods of
USE
NUMBER OF SEQUENCES: 46
CORRESPONDENCE ADDRESS:
ADDRESSER: Fish & Richardson
STREET: 225 Franklin Street
CITY: Boston
STATE: MA
COUNTRY: U.S.A.
ZIP: 02110-2804

COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30B
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/330,163
FILING DATE: 05-AUG-1994
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: Faese, J. Peter
REGISTRATION NUMBER: 32,983
REFERENCE/DOCKET NUMBER: 00231/080001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-5070
TELEFAX: (617) 542-8906
INFORMATION FOR SEQ ID NO: 13:
SEQUENCE CHARACTERISTICS:
LENGTH: 72 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-330-163-13

Query Match 52.6%; Score 219; DB 1; Length 72;
Best Local Similarity 51.5%; Pred. No. 2.5e-19;
Matches 35; Conservative 17; Mismatches 16; Indels 0; Gaps 0;

QY 5 SSSRGPHPSCECTTYTYTKIPRORIMDYETNSQCSKPGIVFTTKRGHSVCTNPSDKM 64
DB 2 SASLADPTACCCSYTSRQIPQNFADYFTSSQCSKPGIVFTTKRGHSVCTNPSDKM 61

QY 65 ODYTKDMK 72
DB 62 QKTVSDLE 69

Search completed: January 10, 2006, 23:01:07
Job time : 47 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 10, 2006, 22:52:16 ; Search time 38 Seconds
(without alignments)
187.369 Million cell updates/sec

Title: US-10-760-557-6

Perfect score: 416
Sequence: 1 TKTESSSRGRPHSECCFTY.....VCTNPSPKWDYIKMKEN 74

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR 80:*
1: PIR1:*
2: PIR2:*
3: PIR3:*
4: PIR4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	219	52.6	92	2	A30574
2	218	52.4	92	2	C30552
3	218	52.4	93	2	B35673
4	216	51.9	92	2	I46730
5	212	51.0	92	1	A31767
6	200.5	48.2	92	2	A33393
7	191.5	46.0	92	2	I53222
8	172	41.3	91	1	A28815
9	167	40.1	91	1	A46539
10	163.5	39.3	120	2	UE0177
11	163	39.2	50	2	C60407
12	157.5	37.9	116	2	I49555
13	150.5	36.2	148	1	A30209
14	145.5	35.0	99	2	JC5295
15	145.5	35.0	148	1	S07723
16	144	34.6	99	2	UC1336
17	139.5	33.5	125	2	I46857
18	138.5	33.3	109	2	A54678
19	136	33.7	99	1	A39236
20	136	33.7	99	2	JC3336
21	128.5	30.9	97	2	JC4912
22	127.5	30.6	99	2	JC2417
23	126	30.3	120	2	I46147
24	123.5	29.7	96	2	JC2478
25	123.5	29.7	96	2	I46099
26	122.5	29.4	99	2	A60299
27	122	29.3	99	2	A55984
28	119	28.6	96	2	A37236
29	113	27.2	114	1	ETHUL

30	107.5	25.8	97	2	A48093	monocytic cytokine
31	92	22.1	114	1	ETMSL	lymphotactin precu
32	86.5	20.8	92	2	S24236	TCa3 protein - mou
33	77.5	18.6	95	2	JN0841	interleukin-8 - do
34	75.5	18.1	101	2	S42496	interleukin-8 - ra
35	71.5	17.2	101	2	I46871	interleukin-8 - ra
36	71	17.1	103	2	A53096	interleukin-8 prec
37	68.5	16.5	103	2	I50417	RSV-induced proteol
38	68.5	16.5	103	2	A26736	transformation-ind
39	68.5	16.5	111	2	T23873	hypothetical prote
40	68.5	16.5	316	2	H90372	catechol 2,3-dioxy
41	66	15.9	101	2	I48148	Neutrophil attract
42	66	15.9	942	2	T19553	hypothetical prote
43	65	15.6	348	2	T03911	r40c1 protein - ri
44	64.5	15.5	99	2	A37034	interleukin-8 prec
45	63.5	15.3	461	1	A35356	tumor necrosis fac

ALIGNMENTS

RESULT 1
A30574
macrophage inflammatory protein 1-alpha precursor - human
N:Alternate names: LD78-alpha protein precursor; lymphocyte tumor promoter-induced protei
tivation protein 1
C:Species: Homo sapiens (man)
C:Date: 03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change 09-Jul-2004
C:Accession: A35673; A30574; A30412; A24198; A30908
R:Nakao, M.; Nomiya, H.; Shimada, K.
Mol. Cell. Biol. 10, 3646-3658, 1990
A:Title: Structures of human genes coding for cytokine LD78 and their expression.
A:Reference number: A35673; MUID:90287155; PMID:1694014
A:Accession: A35673
A:Molecule type: DNA
A:Residues: 1-92 <NAK>
A:Cross-references: UNIPROT:P10147; UNIPARC:UPI00001362C9; GB:D90144; NID:g219905; PIDN:E
R:Zif, P. F.; Balke, J.; Irving, S. G.; Kelly, K.; Siebenlist, U.
J. Immunol. 142, 1582-1590, 1989
A:Title: Mitogenic activation of human T cells induces two closely related genes which sh
A:Reference number: A30574; MUID:89140347; PMID:2521882
A:Accession: A30574
A:Molecule type: mRNA
A:Residues: 1-92 <ZBP>
A:Cross-references: UNIPARC:UPI00001362C9; GB:M25315; NID:g602452; PIDN:AAA57255.1; PID:G
R:Blum, S.; Forsdyke, R. E.; Forsdyke, D. R.
DNA Cell Biol. 9, 589-602, 1990
A:Title: Three human homologs of a murine gene encoding an inhibitor of stem cell prolif
A:Reference number: A30412; MUID:91103879; PMID:2271120
A:Accession: A30412
A:Molecule type: mRNA
A:Residues: 1-92 <BLU>
A:Cross-references: UNIPARC:UPI00001362C9; GB:M23178; GB:M32337; NID:g182846; PIDN:AAA35
R:Obaru, K.; Fukuda, M.; Maeda, S.; Shimada, K.
J. Biochem. 99, 885-894, 1986
A:Title: A cDNA clone used to study mRNA inducible in human tonsillar lymphocytes by a tr
A:Reference number: A24198; MUID:86223879; PMID:3086300
A:Accession: A24198
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-92 <OBA>
A:Cross-references: UNIPARC:UPI00001362C9; GB:X03754; NID:g34298; PIDN:CAA27388.1; PID:G
C:Gene: GDB:SCYA3
A:Cross-references: GDB:120368; OMIM:182283
A:Map position: 17q11-17q21
C:Superfamily: macrophage inflammatory protein
F:1-20/DNA: signal sequence #status predicted <SIG>
F:21-92/Protein: macrophage inflammatory protein 1-alpha #status predicted <MAT>
F:33-57,34-73/Distillate bonds: #status predicted

Query Match 52.6%; Score 219; DB 2; Length 92;
Best Local Similarity 51.5%; Pred. No. 1.5e-17;

[illegible][illegible]

Db 23 SAPMGSDPPTACCTSYTRKLPKRPVVDYETTSLSQSPAVVFTQKRGVCANPSESVM 82
QY 65 QDYTKMKEN 74
Db 83 QEVYDDLELN 92

RESULT 5
A:1767
macrophage inflammatory protein 1-beta precursor [validated] - human
N:Alternate names: cytokine HC21; G-26 protein; H400 homolog; lymphocyte activation gene
protein 2 (Act-2); T-cell activation protein gamma
C:Species: Homo sapiens (man)
C:Date: 07-Jun-1990 #sequence revision 29-May-1998 #text change 09-Jul-2004
C:Accession: J03139; A40978; A31767; A37411; B30574; B45817; D30552
R:Baikenas, E.; Roman-Roman, S.; Jitsukawa, S.; Genevee, C.; Mechiche, S.; Vilegas-Pequig
Mol. Immunol. 27, 1091-1102, 1990
A:Title: Cloning and expression of a lymphocyte activation gene (LAG-1).
A:Reference number: J03139; MUID:91061800; PMID:2247088
A:Accession: J03139
A:Status: translation not shown
A:Molecule type: DNA
A:Residues: 1-92 <BAI>
A:Cross-references: UNIPROT:P13336; UNIPARC:UPI00001362CC; GB:X53682; NID:934217; PIDN:C
A:Experimental source: natural killer cell, strain CD3-CD24, F5, STILES
R:Napolitano, M.; Modi, W.S.; Cevallo, S.J.; Ghatra, J.R.; Senanez, H.N.; Leonard, W.J.
J. Biol. Chem. 266, 17531-17536, 1991
A:Title: The gene encoding the Act-2 cytokine. Genomic structure, HTLV-1/tax responsiveness
A:Reference number: A40978; MUID:91373378; PMID:1894635
A:Accession: A40978
A:Molecule type: DNA
A:Residues: 1-14, 'S', 16-69, 'G', 71-92 <NAP>
A:Cross-references: UNIPARC:UPI00016A493; GB:M69201; NID:9178021
A>Note: 15-Ala was also found
R:Idpes, M.A.; Napolitano, M.; Jeang, K.T.; Chang, N.T.; Leonard, W.J.
Proc. Natl. Acad. Sci. U.S.A. 85, 9704-9708, 1988
A:Title: Identification, cloning, and characterization of an immune activation gene.
A:Reference number: A31767; MUID:89071764; PMID:2462251
A:Accession: A31767
A:Molecule type: mRNA
A:Residues: 1-92 <LIP>
A:Cross-references: UNIPARC:UPI00001362CC; GB:J04130; NID:9178017; PIDN:AAA51576.1; PID:
R:Chang, H.C.; Reinherz, E.L.
Eur. J. Immunol. 19, 1045-1051, 1989
A:Title: Isolation and characterization of a cDNA encoding a putative cytokine which is
A:Reference number: A37411; MUID:89325421; PMID:2568930
A:Accession: A37411
A:Molecule type: mRNA
A:Residues: 1-92 <CHA>
A:Cross-references: UNIPARC:UPI00001362CC; GB:X16166; NID:932035; PIDN:CAA34291.1; PID:G
R:Ziefel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Siebenlist, U.
J. Immunol. 142, 1582-1590, 1989
A:Title: Mitogenic activation of human T cells induces two closely related genes which
A:Reference number: A30574; MUID:89140347; PMID:2521882
A:Accession: B30574
A:Molecule type: mRNA
A:Residues: 1-19, 'T', 21-92 <ZIP>
A:Cross-references: UNIPARC:UPI000016A787; GB:M25316; NID:9602454; PIDN:AAA57256.1; PID:
R:Miller, M.D.; Hara, S.; Malefey, R.D.W.; Krangel, M.S.
J. Immunol. 143, 2307-2316, 1989
A:Title: A novel polypeptide secreted by activated human T lymphocytes.
A:Reference number: A45817; MUID:90038522; PMID:2809212
A:Accession: B45817
A:Molecule type: mRNA
A:Residues: 7-55, 'T', 57-79, 'T', 81-92 <MTL>
A:Cross-references: UNIPARC:UPI00001736A0; GB:M57503; NID:9339726; PIDN:AAA6752.1; PID:
R:Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
J. Immunol. 142, 679-687, 1989
A:Title: A family of small inducible proteins secreted by leukocytes are members of a ne
s of various activation processes.
A:Reference number: A30552; MUID:89093958; PMID:2521353
A:Accession: D30552

A:Molecule type: mRNA
A:Residues: 1-39, 'REASS', 46-92 <BRO>
A:Cross-references: UNIPARC:UPI0000147059; GB:M23502; NID:9533212; PIDN:AAA6656.1; PID:S
R:Clote, G.M.; Lodi, P.J.; Garrett, D.S.; Gronenborn, A.M.
submitted to the Brookhaven Protein Data Bank, January 1994
A:Reference number: A52206; PDB:1HOM
A:Contents: annotation; conformation and disulfide bond assignments by (1)H-NMR, residues
C:Comment: This protein is secreted by activated lymphocytes and monocytes. It is bound t
C:Genetics:
A:Gene: GDB:LMG1
A:Cross-references: GDB:127451; OMIM:153335
A:Map position: 17q21-17q21
A:Introns: 26/1; 64/2
C:Superfamily: macrophage inflammatory protein
C:Keywords: chemotaxis; cytokine; #status predicted <SIG>
F:1-33/Domains: signal sequence #status predicted <SIG>
F:24-92/Product: macrophage inflammatory protein 1-beta #status experimental <MAT>
F:34-58,35-74/Disulfide bonds: #status experimental

Query Match 51.0%; Score 212; DB 1; Length 92;
Best Local Similarity 50.0%; Pred. No. 9e-17;
Matches 35; Conservative 15; Mismatches 20; Indels 0; Gaps 0;

QY 5 SSSRGPYRPSCECTTYTYKIPRQRIIMDYETNSQSRGIVFTYKRGHSVCTNPSEKRV 64
Db 23 SAPMGSDPPTACCTSYTRKLPKRPVVDYETTSLSQSPAVVFTQKRGVCANPSESVM 82

QY 65 QDYTKMKEN 74
Db 83 QEVYDDLELN 92

RESULT 6
A:2333
macrophage inflammatory protein 1-alpha precursor - mouse
N:Alternate names: heparin-binding chemotaxis protein; LZG25B protein; SCI/MIP-1a; SIS a)
C:Species: Mus musculus (house mouse)
C:Date: 17-Jul-1992 #sequence revision 17-Jul-1992 #text change 09-Jul-2004
C:Accession: S11685; A32393; S04533; A53885; A30552; A27596; I56104
R:Groove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb, M.
Nucleic Acids Res. 18, 5561, 1990
A:Title: Sequence of the murine haemopoietic stem cell inhibitor/macrophage inflammatory
A:Reference number: S11685; MUID:91016658; PMID:2216738
A:Accession: S11685
A:Molecule type: DNA
A:Residues: 1-92 <GRO>
A:Cross-references: UNIPROT:P10855; UNIPARC:UPI000020B06; EMBL:X53372; NID:954062; PIDN:
A>Note: the authors' translation of the nucleotide sequence differs at several positions
R:Kwon, B.S.; Weisman, S.M.
Proc. Natl. Acad. Sci. U.S.A. 86, 1963-1967, 1989
A:Title: cDNA sequence of two inducible T-cell genes.
A:Reference number: A32393; MUID:89184547; PMID:2784565
A:Accession: A32393
A:Molecule type: mRNA
A:Residues: 1-92 <KMO>
A:Cross-references: UNIPARC:UPI000020B06; GB:J04491; NID:9201524; PIDN:AAA40304.1; PID:C
R:Davidellis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.; Luedke, C.; Gallegos, C.; C
J. Exp. Med. 167, 1939-1944, 1988
A:Title: Cloning and characterization of a cDNA for murine macrophage inflammatory protei
A:Reference number: S04533; MUID:88258380; PMID:3290382
A:Accession: S04533
A:Molecule type: mRNA
A:Residues: 1-48, 'E', 50-90, 'T', 92 <DA2>
A:Cross-references: UNIPARC:UPI0000176749; EMBL:X12531
A>Note: the authors translated the codon GAG for residue 49 as Asp and ATT for residue 91
R:Davidellis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.; Luedke, C.; Gallegos, C.; C
J. Exp. Med. 170, 2189, 1989
A:Reference number: A53885
A:Contents: extratum
A:Accession: A53885
A:Molecule type: mRNA
A:Residues: 1-92 <DAV>

A/Cross-references: UNIPARC:UPI0000020B06; EMBL:X12531; NID:953122; PIDN:CA31047.1; PID: J.Brown, K.D.; Zurawski, S.M.; Moemann, T.R.; Zurawski, G.
 A/Immuno: 142; 679-687, 1989
 A/Title: A family of small inducible proteins secreted by leukocytes are members of a new class of various activation processes
 A/Reference number: A50552; MUID:69093958; PMID:2521353
 A/Accession: A50552
 A/Molecule type: mRNA
 A/Residues: 1-21; L, 23-61, A, 63-92

 A/Cross-references: UNIPARC:UPI000016D05B; GB:M23447; NID:9533240; PIDN:AAA40146.1; PID: R.Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.; Davatelis, G.; Wolpe, S.D.; Mac U. Exp. Med. 168, 2251-2259, 1988
 A/Title: Resolution of the two components of macrophage inflammatory protein 1, and cloning
 A/Reference number: J10088; MUID:69067830; PMID:3058836
 A/Accession: P50303
 A/Molecule type: mRNA
 A/Residues: 24-33; XX', 36-54 <SHE>
 A/Cross-references: UNIPARC:UPI000017674A
 R.Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Hesse, D.G.; Nguyen, H.T.; Moldaw U. Exp. Med. 167, 570-581, 1988
 A/Title: Macrophages secrete a novel heparin-binding protein with inflammatory and neutrophilic chemotactic activity
 A/Reference number: A27596; MUID:88154745; PMID:3279154
 A/Accession: A27596
 A/Molecule type: protein
 A/Residues: 24-33; XX', 36-42 <MOL>
 A/Cross-references: UNIPARC:UPI000017674B
 A/Note: 26-Met, 30-Pro, and 39-Thr were also found
 R.Widmer, U.; Yang, Z.; van Deventer, S.; Manogue, K.R.; Sherry, B.; Cerami, A.
 J. Immunol. 146, 4031-4040, 1991
 A/Title: Genomic structure of murine macrophage inflammatory protein-1-alpha and conservation
 A/Reference number: 156104; MUID:91237116; PMID:2033269
 A/Accession: 156104
 A/Status: preliminary; translated from GB/EMBL/DBJ
 A/Molecule type: DNA
 A/Residues: 1-92 <RES>
 A/Cross-references: UNIPARC:UPI000020B06; GB:M73061; NID:919694; PIDN:AAA39707.1; PID: C/Comment: This protein is a monokine.
 C/Genetics:
 A/Intons: 23/3; 26/1; 63/2
 C/Superfamily: macrophage inflammatory protein
 C/Keywords: heparin binding
 P:1-23/Domin: signal sequence #status predicted <SIG>
 P:24-92/Product: macrophage inflammatory protein #status experimental <MAT>
 Query Match 48.2%; Score 200.5; DB 2; Length 92;
 Best Local Similarity 48.6%; Pred. No. 1-8e-15; Indels 1; Gaps 1;
 Matches 34; Conservative 17; Mismatches 18;
 Oy 5 SSSRGPHNPSCECFYTYTKIPRORIMDYETNSQSKPGIVFTRKGSVCNPDKNV 64
 Db 23 SARYGADTPACCFSGVGRQIPKRFADYFETSSLSQGPVIFLTRNRQICADPKETW 81
 Oy 65 ODYIKMKEN 74
 Db 82 QRYITTELEIN 91
 RESULT 7
 152322
 macrophage inflammatory protein-1alpha - rat
 C/Species: Rattus norvegicus (Norway rat)
 C/Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 09-Jul-2004
 C/Accession: 152322
 R/Shi, M.W.; Godleski, J.J.; Paulauskis, J.D.
 Biochem. Biophys. Res. Commun. 211, 289-295, 1995
 A/Title: Molecular cloning and posttranscriptional regulation of macrophage inflammatory protein-1
 A/Reference number: 152322; MUID:95298037; PMID:7779098
 A/Accession: 152322
 A/Status: preliminary; translated from GB/EMBL/DBJ
 A/Molecule type: mRNA
 A/Residues: 1-92 <RES>
 A/Cross-references: UNIPROT:P50229; UNIPARC:UPI0000362CA; EMBL:U22414; NID:9790632; PID: C/Superfamily: macrophage inflammatory protein

Query Match 46.0%; Score 191.5; DB 2; Length 92;
 Best Local Similarity 45.7%; Pred. No. 1-8e-14; Indels 1; Gaps 1;
 Matches 32; Conservative 18; Mismatches 19;
 Oy 5 SSSRGPHNPSCECFYTYTKIPRORIMDYETNSQSKPGIVFTRKGSVCNPDKNV 64
 Db 23 SARYGADTPACCFSGVGRQIPKRFADYFETSSLSQGPVIFLTRNRQICADPKETW 81
 Oy 65 ODYIKMKEN 74
 Db 82 QRYITTELEIN 91
 RESULT 8
 A28815
 monocyte chemoattractant cytokine RANTES precursor - human
 N/Alternate names: small inducible cytokine A5; T-cell specific cytokine RANTES
 C/Species: Homo sapiens (man)
 C/Date: 30-Jun-1989 #sequence_revision 16-Aug-1996 #text_change 09-Jul-2004
 C/Accession: A28815
 R/Schall, T.J.; Jongstra, J.; Dyer, B.J.; Jorgensen, J.; Clayberger, C.; Davis, M.M.; Kie U. Immunol. 141, 1018-1025, 1988
 A/Title: A human T cell-specific molecule is a member of a new gene family.
 A/Reference number: A28815; MUID:88285659; PMID:2456327
 A/Accession: A28815
 A/Molecule type: mRNA
 A/Residues: 1-91 <SCH>
 A/Cross-references: UNIPROT:P13501; UNIPARC:UPI000004A187; GB:M21121
 C/Comment: The acronym RANTES reflects the description "Regulated upon Activation, Normal" and "T-cell Attractant".
 C/Genetics:
 A/Gene: GDB:SCY45; D17S136E
 A/Cross-references: GDB:120749; OMIM:187011
 A/Map position: 17q11.2-17q12
 C/Superfamily: macrophage inflammatory protein
 C/Keywords: chemotaxis; cytokine; immediate-early protein; inflammation; T-cell
 P:1-23/Domin: signal sequence #status predicted <SIG>
 P:24-91/Product: T-cell protein RANTES #status predicted <MAT>
 Query Match 41.3%; Score 172; DB 1; Length 91;
 Best Local Similarity 39.1%; Pred. No. 2.8e-12; Indels 2; Gaps 1;
 Matches 27; Conservative 15; Mismatches 25;
 Oy 6 SSSRGPHNPSCECFYTYTKIPRORIMDYETNSQSKPGIVFTRKGSVCNPDKNV 63
 Db 21 ASASPYGSDTTPCCFVIANPLPRAHKEYFTSGKCSNDAVVFTRKRNQCANPEKVV 80
 Oy 64 VODYIKMK 72
 Db 81 VREYINSL 89
 RESULT 9
 A46539
 monocyte chemoattractant cytokine RANTES precursor - mouse
 N/Alternate names: Murantes
 C/Species: Mus musculus (house mouse)
 C/Date: 16-Jun-1993 #sequence_revision 16-Aug-1996 #text_change 09-Jul-2004
 C/Accession: 148875; A46539; 148654; 156970
 R/Daniel, T.W.; Lallely, P.A.; Chang, Y.S.; Heeger, P.S.; Nelson, E.G.
 J. Immunol. 152, 1182-1189, 1994
 A/Title: Cloning, genomic organization, and chromosomal localization of the Scya5 gene
 A/Reference number: 148875; MUID:94132613; PMID:7507961
 A/Accession: 148875
 A/Status: preliminary; translated from GB/EMBL/DBJ
 A/Molecule type: DNA
 A/Residues: 1-91 <DNA>
 A/Cross-references: UNIPROT:P30882; UNIPARC:UPI00000028C; EMBL:U02298; NID:9460090; PID: R/Schall, T.J.; Simpson, N.J.; Mak, J.Y.
 Eur. J. Immunol. 22, 1477-1481, 1992
 A/Title: Molecular cloning and expression of the murine RANTES cytokine: structural and functional analysis
 A/Reference number: A46539; MUID:92289805; PMID:1376260
 A/Accession: A46539

C:Superfamily: macrophage inflammatory protein
C:Keywords: cytokine; glycoprotein
F:126/Binding site: carbohydrate (Asn) (covalent) #status predicted
Query Match 36.2%; Score 150.5; DB 1; Length 148;
Best Local Similarity 41.3%; Pred. No. 1.2e-09;
Matches 26; Conservative 13; Mismatches 23; Indels 1; Gaps 1;
QY 13 PSECCFTYTYKIPRORIMDYE-TNSQSKPGIVFTKRGHSVCTNPSDKWQDYIKDM 71
DB 31 PLTCCYSFTGKMIPLMSRLSEYKRTSSRCPEAVFVTKLRKREVCADPKKRWQTYIKNL 90
QY 72 KEN 74
DB 91 DRN 93
RESULT 14
JC5295
monocyte chemotactic protein-2 precursor - human
C:Species: Homo sapiens (man)
C:Date: 02-May-1997 #sequence_revision 18-Jul-1997 #text_change 09-Jul-2004
C:Accession: J05295
R:Van Collie, E.; Proyen, G.; Nomiya, H.; Miura, R.; Fiten, P.; Van Aelst, I.; Van De
Biochem. Biophys. Res. Commun. 231, 726-730, 1997
A:Title: Human monocyte chemotactic protein-2: cDNA cloning and regulated expression of
A:Reference number: J05295; MUID:97224420; PMID:9070881
A:Accession: J05295
A:Molecule type: mRNA
A:Residues: 1-99 <VAN>
A:Cross-references: UNIPROT:P80075; UNIPARC:UPI0000030FC6; GB:Y10802; NID:G1924937; PIDN
A:Experimental source: bone marrow
C:Comment: This protein belongs to the beta-chemokine family which is one of the major H
ts and in tumor biology, and contribute to the trafficking and recruitment of the respo
C:Genetics:
A:Gene: MCP-2
C:Superfamily: macrophage inflammatory protein
F:1-23/Domain: signal sequence #status predicted <SIG>
F:24-99/Product: monocyte chemotactic protein-2 #status predicted <MAT>
Query Match 35.0%; Score 145.5; DB 2; Length 99;
Best Local Similarity 47.9%; Pred. No. 2.8e-09;
Matches 26; Conservative 11; Mismatches 24; Indels 1; Gaps 1;
QY 13 PSECCFTYTYKIPRORIMDYE-TNSQSKPGIVFTKRGHSVCTNPSDKWQDYIKDM 71
DB 31 PLTCCFVNRKRIQRLSEYTRITINICPEAVIFKTKRGKVCADPKKRWQDSKHL 90
QY 72 KEN 73
DB 91 DQ 92
RESULT 15
S07723
Immediate-early serum-responsive protein JE precursor - rat
N:Alternate names: monocyte chemoattractant protein-1
C:Species: Rattus norvegicus (Norway rat)
C:Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C:Accession: S07723; JN0128
R:Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A.J.
Nucleic Acids Res. 18, 23-34, 1990
A:Title: Analysis of the rat JE gene promoter identifies an AP-1 binding site essential
A:Reference number: S07723; MUID:90174947; PMID:2106664
A:Accession: S07723
A:Molecule type: DNA
A:Residues: 1-148 <TIM>
A:Cross-references: UNIPROT:P14844; UNIPARC:UPI0000000187; EMBL:X17053; NID:G55530; PIDN
R:Yoshimura, T.; Takeya, M.; Takahashi, K.
Biochem. Biophys. Res. Commun. 174, 504-509, 1991
A:Title: Molecular cloning of rat monocyte chemoattractant protein-1 (MCP-1) and its exp
A:Reference number: JN0128; MUID:91128376; PMID:1704226
A:Accession: JN0128

A:Molecule type: mRNA
A:Residues: 1-148 <YOS>
A:Cross-references: UNIPARC:UPI0000000187; GB:M57441; NID:G205333; PIDN:AAA63496.1; PID:5
A:Experimental source: spleen cells
A:Note: the authors translated the codon GAA for residue 62 as Lys and GCT for residue 63
C:Genetics:
A:Insertions: 26/1; 65/2
C:Superfamily: macrophage inflammatory protein
F:1-23/Domain: signal sequence #status predicted <SIG>
F:24-148/Product: immediate-early serum-responsive protein JE #status predicted <MAT>
Query Match 35.0%; Score 145.5; DB 1; Length 148;
Best Local Similarity 38.1%; Pred. No. 4.2e-09;
Matches 24; Conservative 16; Mismatches 22; Indels 1; Gaps 1;
QY 13 PSECCFTYTYKIPRORIMDYE-TNSQSKPGIVFTKRGHSVCTNPSDKWQDYIKDM 71
DB 31 PLTCCYSFTGKMIPLMSRLSEYKRTSSRCPEAVFVTKLRKREVCADPKKRWQTYIKRL 90
QY 72 KEN 74
DB 91 DQW 93
Search completed: January 10, 2006, 23:00:09
Job time : 39 secs